THE NATIONAL PARKS AND
NATIONAL HISTORIC SITES OF CANADA

LES PARCS NATIONAUX ET LES
LIEUX HISTORIQUES NATIONAUX DU CANADA

GRASSLANDS

NATIONAL PARK OF CANADA

Management Plan

Parks Canada Parcs Canada

The Sacred Earth

No landscape had more associations than grassland with the things humans have come to value most as they've spread through the colder parts of the earth: the sun as a celestial source of life, its useful earthly incarnation as fire, big herds of grazing animals. Since civilization began, successive waves of sun-worshiping, grassland nomads have dominated the human race, so that there probably is not a single system of belief without these grassland components. The human body itself seems as much an adaptation to grassland life as the hoofs of a bison. Erect gait, long legs, muscular buttocks, balancing arms, binocular vision - all are directed toward efficient movement in a landscape of horizons. If hominids hadn't left the forest, we would still be able to climb as well as apes.

If Eden often is imagined as a kind of arboretum, then heaven is seen as an equally green and flowery, but more open, place - a place where not even a fruit tree will obstruct the celestial light. Such an Elysian field has a striking likeness to an upland prairie in springtime, when herds are calving and winds smell of flowers. If a nomadic hunter or herder wanted a certain time protracted into eternity, it probably would be spring on a prairie.

David Rains Wallace
The Klamath Knot

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Grasslands National Park of Canada

Management Plan

October 2002

Foreword

Canada's spectacular national parks connect us to our roots, to our future and to each other. Many nations have human-made monuments as national symbols. In Canada, we also have our vast landscapes and our wildlife. We may live in cities but nature is in our souls.

The upland prairies, broad valleys, badlands, rivers and streams of Grasslands National Park of Canada are integral parts of our national identity.

The sagebrush, blue grama grass, prickly pear cactus, western wheat grass, spikemoss and trembling aspens of Grasslands are part of our national psyche.

The pronghorn antelope, the black-tailed prairie dog, the prairie falcon, the leopard frog and the painted turtle are part of our national blessing.

What we cherish as part of our national identity, we must also recognize as part of our national responsibility.

Grasslands National Park will protect an area representative of the mixed-grass prairie in perpetuity. The care and management of the park are now guided by this management plan. The plan rightly places a priority on restoring and maintaining the park's ecological integrity, through the protection of its outstanding natural and cultural resources, and through careful visitor management.

May I offer my deep appreciation to the vast range of thoughtful Canadians who helped forge this plan. I am especially grateful to the members of the Grasslands National Park Advisory Committee, whose good will, hard work, spirit of co-operation and extraordinary sense of stewardship bode well for the future health of the park.

In that same spirit of partnership and responsibility, I am pleased to approve the Grasslands National Park of Canada Management Plan.

Sheila Copps

Sheila Copps
Minister of Canadian Heritage

Recommendation Statement

Grasslands National Park of Canada
Management Plan

Recommended for approval by:

T Lee

Tom Lee
Chief Executive Officer
Parks Canada

Nikita Lopoukhine
Director General
National Parks, Parks Canada

G. Fortin

Gaby Fortin
Director General
Western and Northern Canada, Parks Canada

Cheryl Penny
Field Unit Superintendent
South Saskatchewan Field Unit, Parks Canada

Summary

This publication presents a management plan for Grasslands National Park of Canada. It serves as the park's primary strategy for achieving Parks Canada's mandate of ecological integrity, and understanding, appreciation and enjoyment.

The plan was cooperatively developed by Parks Canada and an advisory committee that represented numerous public and government interests. It was also presented for broad public review. Public meetings were held in communities around the park and in Regina and Saskatoon.

The plan includes a park vision for the future to help focus management efforts. Grasslands National Park will be a setting for maintaining or restoring the ecological integrity of native prairie. The park will offer a vast array of cultural resources recognized for their national and international significance. It will be a setting for world-class research on mixed-grass ecosystems, and it will play a valuable role in regional, continental, and global conservation.

Visitors will be rewarded with the vistas of vast prairie landscapes, and the sight of birds, plants, and animals they rarely have the opportunity to see. They will be thrilled with stories of human presence on the prairies, from present-day ranching to precontact bison hunting thousands of years ago, and moved by descriptions of the major stages of the earth's evolutionary history so well illustrated in the park's geological formations. They will be touched by messages of ecological and cultural responsibility, and feel a sense of national pride and identity.

Canadians at a distance will have plenty of opportunities to learn about the park and will take pride in the park's conservation efforts.

There will be strong public support for the park, as evidenced by the high level of cooperation among all those who have a stake in its future.

Challenges in Park Management

There are several challenges to making this vision a reality, including the following:

- Land acquisition has not been completed, resulting in a patchwork of lands held by Parks Canada and private landowners.
- The park is divided into two separate areas, the East Block and the West Block.
- Important natural processes, such as large animal grazing and uncontrolled fire, no longer occur.
- Tipi rings and other cultural resources are inseparable from natural features of the park, emphasizing the need for integrated natural and cultural resource management.
- The park offers few visitor facilities, such as hiking trails, drinking water, signage, and reliable roads.
- Species that once lived in the park, such as the black-footed ferret, are no longer found there.
- Vegetation species non-native to the grasslands ecosystem are found in the park.

Strategies

The plan sets out strategies that address these and other challenges while maintaining and building the integrity of natural and cultural resources in the park.

Key among the strategies are the following:

- applying fire and large animal grazing "prescriptions" to help restore the ecological integrity of the park;
- promoting revegetation of cultivated fields and the reintroduction of indigenous wildlife species;
- using an adaptive and integrated approach in the management of cultural and natural resources to protect the integrity of both types of resources;
- promoting the park as a site for world-class research on native prairie, by working cooperatively with institutions and interested persons;
- continuing to acquire land for the park on the basis of willing-seller/willing-buyer;
- presenting different experiences in the East and West blocks that reflect the unique offerings of each block;
- focusing on the types of visitors who would be attracted to the park—knowledge and variety seekers, nature buffs, casual visitors, and outreach audiences—and matching the park's unique attributes to their preferences;
- enhancing the park's facilities and services based on the activities and motivations of the four types of visitors;
- developing relationships with cooperating associations, groups, and individuals to provide valuable additions to services and resource management protection programs already in place;
- ensuring all visitors understand they are in a national park, that it is part of a national system and they know how to use the park appropriately;
- ensuring Parks Canada's ability to meet public demand for interpretive programs;
- improving infrastructure in the park that is essential to achieving the vision.

Protecting for All Time

The approved management plan, which will be subject to review every five years, will seek to protect, for all time, that part of the Prairie Grasslands Natural Region that the park represents.

In so doing, the plan will encourage understanding, appreciation, and enjoyment of the park's natural and cultural values in ways that leave those values unimpaired for future generations.

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1. Park Purpose and Vision

The purpose and vision for the park define the key values that Parks Canada and the public will seek to achieve in park management. These statements also set out an inspiring view of the future for Grasslands National Park of Canada.

The park purpose and vision also help focus and guide the planning, management, and operation of the park over the long term, while fostering cooperation among the people who live near, work in, care for, and use the park.

1.1 What is the Purpose of the Park?

Grasslands National Park protects, for all time, a representative part of the Prairie Grasslands Natural Region; and encourages public understanding, appreciation and enjoyment of the park's natural and cultural heritage values, in ways that leave them unimpaired for future generations.

1.2 Looking Ahead to 2020—The Park Vision

Grasslands National Park will be a dynamic, resilient, and evolving grassland system that maintains its native biodiversity and wilderness character.

The processes that keep the park healthy will all be functioning in harmony with the larger ecosystem of the region. Some of the grasslands species that occupied the area in the past will once again call Grasslands National Park home. Bison raising dust in a wallow, swift fox pups playing in coulees, and prairie vistas that stretch uninterrupted to the horizon will be a testimony to the strength of the system and the successful management efforts that brought them back.

The ecological roles of fire and large grazers will be represented, and will emphasize aspects that are under-represented in the regional landscape. The result will complement surrounding rangelands and increase the ecological integrity of the whole.

The vision focuses on the following areas:

Global Role

Grasslands National Park will play an important role as part of a worldwide network of protected areas against which changes in local, regional, and global environments can be measured. As part of this network, Grasslands National Park will serve as an *in situ* gene pool to protect part of the biodiversity of the planet. It will also be Canada's best representation of the Prairie Grasslands Natural Region and a centre for communicating the importance of grassland conservation.

Inspiration for Research

Grasslands National Park will be renowned for research that contributes to our understanding of mixed-grass ecosystems. It will continue to inspire research into both natural and cultural heritage resources.

Safeguarding Native Prairie

Native prairie will be conserved and restored in Grasslands National Park. Cooperation among park managers and adjacent land managers is increasing. Parks Canada will support conservation efforts outside the park which have complementary management objectives. Adjacent land managers will be cooperating to achieve common management and conservation objectives.

Species at Risk

Within the context of ecosystem-based management, population levels and habitat requirements of native mixed-grass prairie species will be maintained or enhanced regionally.

Array of Cultural Resources

Grasslands National Park's vast array of cultural resources will be well understood and recognized for its significance. Descendants of the region will know that their stories are accurately portrayed and their cultures respected. Sacred sites, artifacts, former residences, and other cultural features will be considered carefully in all park management actions. Visitors will be rewarded with exciting stories and visible features that weave together the tales of human presence on the prairies.

Captivating Vistas

Visitors to Grasslands National Park will be awestruck by the vast prairie landscapes, and the birds, animals, and plants that they rarely have an opportunity to see. By seeing and learning about the park, they gain a genuine appreciation of the importance of grassland ecosystems.

Knowing and Understanding

There will be increased opportunities for visitors or outreach audiences to partake in entertaining, captivating and informative educational activities. All who participate will understand the profound significance of the park, its relation to the Parks Canada system of heritage places, and its importance as a cornerstone of conservation efforts in this part of our country.

Visitor Friendly

Visitor services and facilities will meet the essential needs of visitors to the park. They are provided in ways that minimize interruption of the open prairie and scenic vistas.

Range of Opportunities

The park setting will present opportunities for Canadians to indulge different interests, from touring by car to hiking. None of these activities will impede the needs of those who seek out hidden places of cultural and natural wonder.

Special Arrangements

Where lands have not been acquired, alternative arrangements acceptable for all parties will have been established to achieve park and related conservation objectives.

Sense of Responsibility

All who are touched by the park will also be touched by its messages of ecological and cultural responsibility, and safety. Grasslands National Park will enjoy the support of mutually rewarding relationships with other government agencies, non-government organizations, industry, the park's cooperating association, neighbours and the public at large. Visitors will bring with them a sense of responsibility for their own safety and conduct.

Strong Public Support

There will be strong public support for the park and for the conservation of grassland ecosystems. All who have a vested interest will have adequate opportunity for representation. They will be comfortable expressing their opinions and feel that they can make a difference in how the park is operated.

Local Involvement

Local communities and interest groups will be involved in the management, protection, and presentation of their ecosystem and cultural legacy. In turn, Parks Canada will work cooperatively with "Prairie Wind and Silver Sage" —Friends of Grasslands Inc. and other groups that share its goals.

2. Background

This section presents supporting information for the plan in areas such as development of the management plan, the history of the park, vegetation and wildlife, and challenges in park management.

2.1 The Park Management Plan

A park management plan is the central document that guides Parks Canada in protecting, managing, and operating a national park. It outlines the appropriate balance of preservation, education, and visitor use goals, and sets out the framework and priorities for achieving them. It also sets out a strategy for park managers, stakeholders, and the general public for working together for the long term.

Under the *Canada National Parks Act,* management plans are required for all national parks. They must be developed with the involvement of the Canadian public, and formally reviewed every five years. The plan has a life span of fifteen years.

2.2 Public Consultation

Public consultation in developing the Grasslands National Park Management Plan has taken the form of general public involvement as well as stakeholder involvement through an advisory committee.

Public at Large

Public involvement helps to ensure sound decision-making, builds understanding, and provides opportunities for Canadians locally and nationally to contribute their knowledge, expertise, and suggestions.

This plan was presented for broad public review and comment. To facilitate public review, a supporting newsletter summarizing the draft plan was distributed to a broad mailing list. The draft plan was also made available at the Grasslands National Park office, and through the Parks Canada Internet site.

Public meetings were held in the communities of Val Marie, Glentworth, Mankota, Wood Mountain, Swift Current, Regina and Saskatoon.

Grasslands National Park Advisory Committee

Because nearly all management issues for Grasslands National Park are influenced by factors outside the park, consultation with key park stakeholders is essential for a management plan to be effective.

To this end, the Grasslands National Park Advisory Committee was established. Its role was to help develop the management plan by providing advice, perspectives, guidance, and information on park management issues.

The advisory committee is comprised of stakeholders representing a wide cross-section of interests:

- "Prairie Wind and Silver Sage" —Friends of Grasslands Inc.
- Métis Nation of Saskatchewan
- Nature Conservancy of Canada
- Nature Saskatchewan
- Province of Saskatchewan
- rural municipalities surrounding the park
- villages/towns around the park
- Saskatchewan Stock Growers' Association
- Tourism Saskatchewan
- University of Regina
- U.S. Bureau of Land Management
- Wood Mountain Historical Society

An Elder from the Nekaneet First Nation (Maple Creek) was also asked to participate on the advisory committee and present his views.

2.3 Formation of the Park

As early as 1956, the Saskatchewan Natural History Society recommended establishment of a grassland national park. Over the next few decades, several national and local conservation groups and members of the public continued to lobby for the park. Federal interest was not sparked until the mid 1960s, when a joint federal/provincial study identified the Val Marie-Killdeer region as the most suitable setting. Subsequent national park system plans identified the need for representation of the Prairie Grasslands Natural Region in Canada's national parks.

In 1975 the Provincial Minister of Renewable Resources and the Federal Minister of Indian and Northern Affairs signed a "Memorandum of Intention of Proposed National Park in Southwestern Saskatchewan." This marked the first significant breakthrough in protracted federal-provincial negotiations on the park. On June 19, 1981, Canada and Saskatchewan signed an agreement to establish Grasslands National Park in southwestern Saskatchewan. Land acquisition began in 1984 and is still under way. Conditions in the original park agreement for oil and gas exploration and water resources management were updated, and the Grasslands National Park Agreement was signed on September 23, 1988.

With the signing of the 1988 agreement, Parks Canada began to deal with the issues surrounding establishment, management, and operation of the proposed park. A park administrative and operations centre was established in Val Marie. The majority of lands that has been acquired for the park have been scheduled in the *Canada National Parks Act*, and will therefore be managed according to the Act and its Regulations. Other lands owned by Parks Canada or purchased in the future for inclusion within the park are not subject to the Act and Regulations, but will be managed in the spirit of the Act, using a variety of applicable legislation available to park managers.

The park is divided into two blocks that cover approximately 906.5 sq. km. Land is acquired for the park on the basis of willing-seller/willing-buyer. As a result, the park has become a patchwork of lands held privately and by Parks

Canada. As of 1999, Parks Canada had acquired 49% of lands in the East Block and 55% of lands in the West Block.

2.4 Regional Setting

Grasslands National Park is located in southwestern Saskatchewan near the Saskatchewan-Montana border (Figure 1). The two separate blocks that comprise the park lie between the villages of Val Marie and Killdeer (Figures 2 and 3). Val Marie is roughly 122 km south of the Trans-Canada Highway on Highway 4.

The other major east-west route, Highway 13 (the Red Coat Trail), runs south of the Trans Canada Highway, past Moose Mountain Provincial Park, the Dirt Hills, and the Cypress Hills. A drive to Val Marie takes about four hours from Regina, three hours from Moose Jaw, and one and a half hours from Swift Current. Postal service, fuel, food, and limited retail and hospitality services are available in Val Marie, Mankota, Glentworth, and Wood Mountain, which are connected by Highway 18.

The semi-arid rangeland of southwestern Saskatchewan is characterized by gently rolling hills, coulees, badlands, and wide-open spaces punctuated by ranch houses, small villages, and winding roads. Most land in the area is dedicated to cattle ranching and dryland farming. Irrigation has prompted some forage production. Agriculture forms the core of local industry. Support sectors such as education, retail, trade, and social services comprise other industry.

2.5 The Great Plains of North America

The Great Plains ecological region stretches as far south as northern Mexico, and as far north as the central prairie provinces. It is a relatively young landscape, arising from the last great ice age which ended 10,000 to 12,000 years ago. Large areas of the northern plains were covered by glaciers during this ice age. As a region, the Great Plains are distinguished by three main characteristics: relatively little topographic relief, wide areas of grasslands with a few forests, and semi-arid climate. In the northern part, the climate is characterized by short, hot summers and long, cold winters. Periodic, intense droughts occur throughout the region.

Over time, the Great Plains have undergone many changes. Much of the plains has been cultivated, although large areas remain essentially intact. It is only recently that efforts have been made to include this region in formal heritage protection strategies such as national parks.

Mixed-Grass Prairie

The Great Plains were once covered with natural grasslands that supported rich and highly specialized plant and animal communities (Figure 4). The interaction of climate, fire, and grazing was the key influence. Short, mid-height and tall grass species are found in different areas in the region. "Mixed-grass prairie" best describes the particular type of grassland associated with the park, since it contains

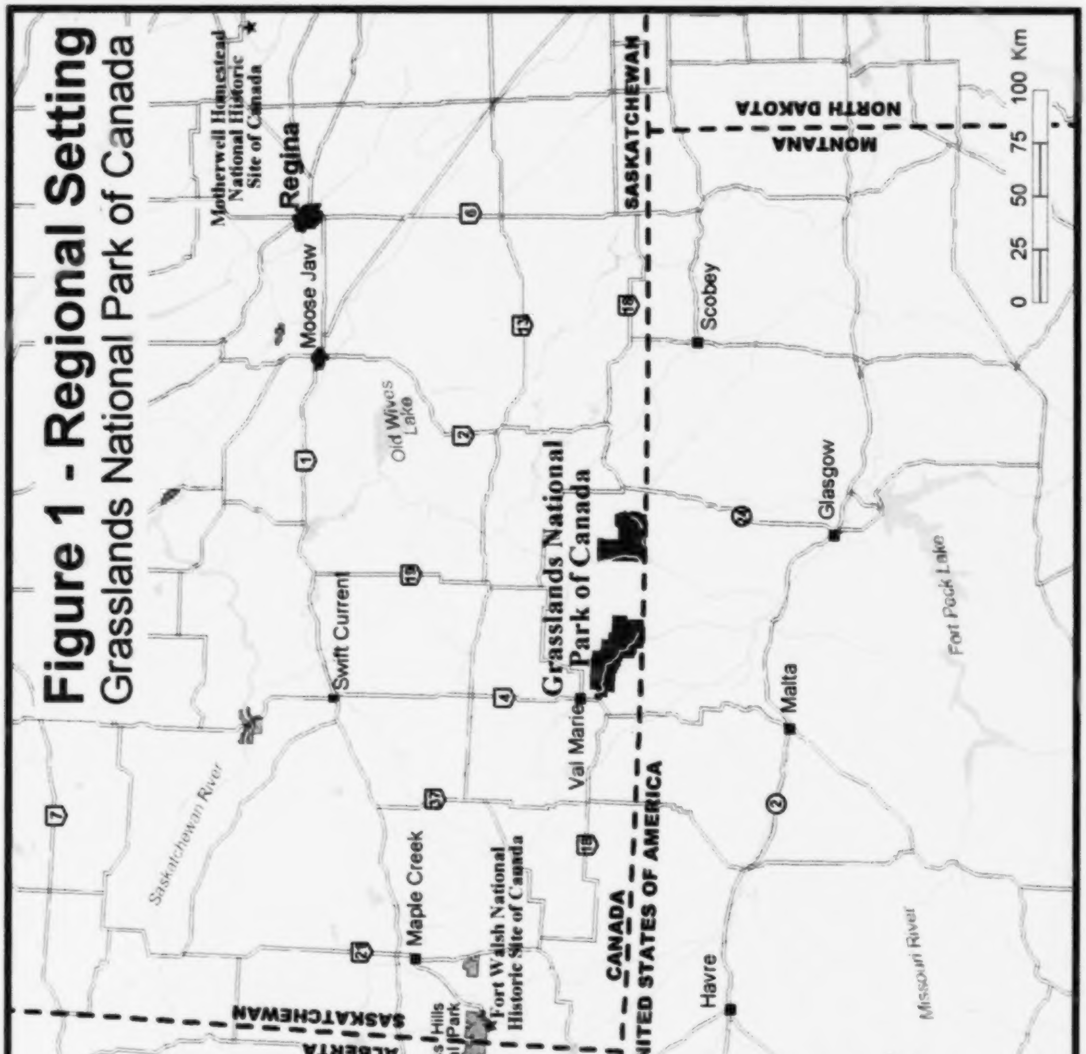


Figure 1 - Regional Setting
Grasslands National Park of Canada

Calgary
Lethbridge
Medicine Hat
Cypress Hills Provincial Park
Fort Walsh National Historic Site of Canada
Maple Creek
Saskatchewan River
Swift Current
Val Marie
Grasslands National Park of Canada
Old Wives Lake
Moose Jaw
Regina
Motherwell Homestead National Historic Site of Canada
ALBERTA
SASKATCHEWAN
MONTANA
NORTH DAKOTA
CANADA
UNITED STATES OF AMERICA
Shelby
Fort Benton
Havre
Missouri River
Malta
Glasgow
Fort Peck Lake
Scobey
1
2
3
4
6
7
9
13
15
18
21
24
37
0
25
50
75
100 Km
Canada
Alberta
Sask
Montana
North Dakota
USA

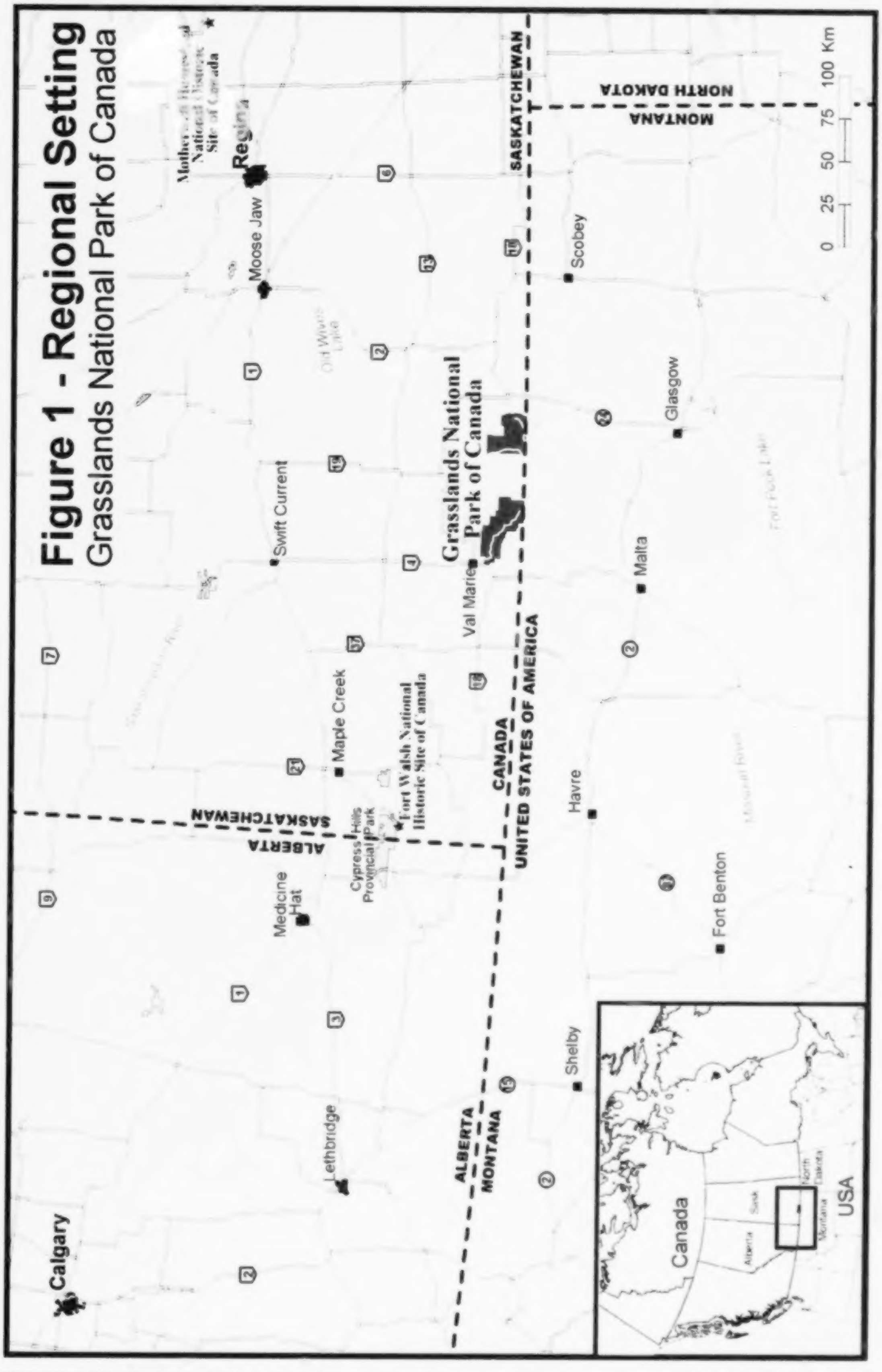


Figure 1 - Regional Setting
Grasslands National Park of Canada

Calgary
Lethbridge
Medicine Hat
Cypress Hills Provincial Park
Fort Walsh National Historic Site of Canada
Maple Creek
Val Marie
Grasslands National Park of Canada
Swift Current
Old Wives Lake
Moose Jaw
Regina
Motherwell Homestead National Historic Site of Canada
Shelby
Havre
Fort Benton
Malta
Glasgow
Scobey
Fort Peck Lake
ALBERTA
SASKATCHEWAN
MONTANA
NORTH DAKOTA
CANADA
UNITED STATES OF AMERICA
0 25 50 75 100 Km
Canada
USA
Alberta
Sask
Montana
North Dakota

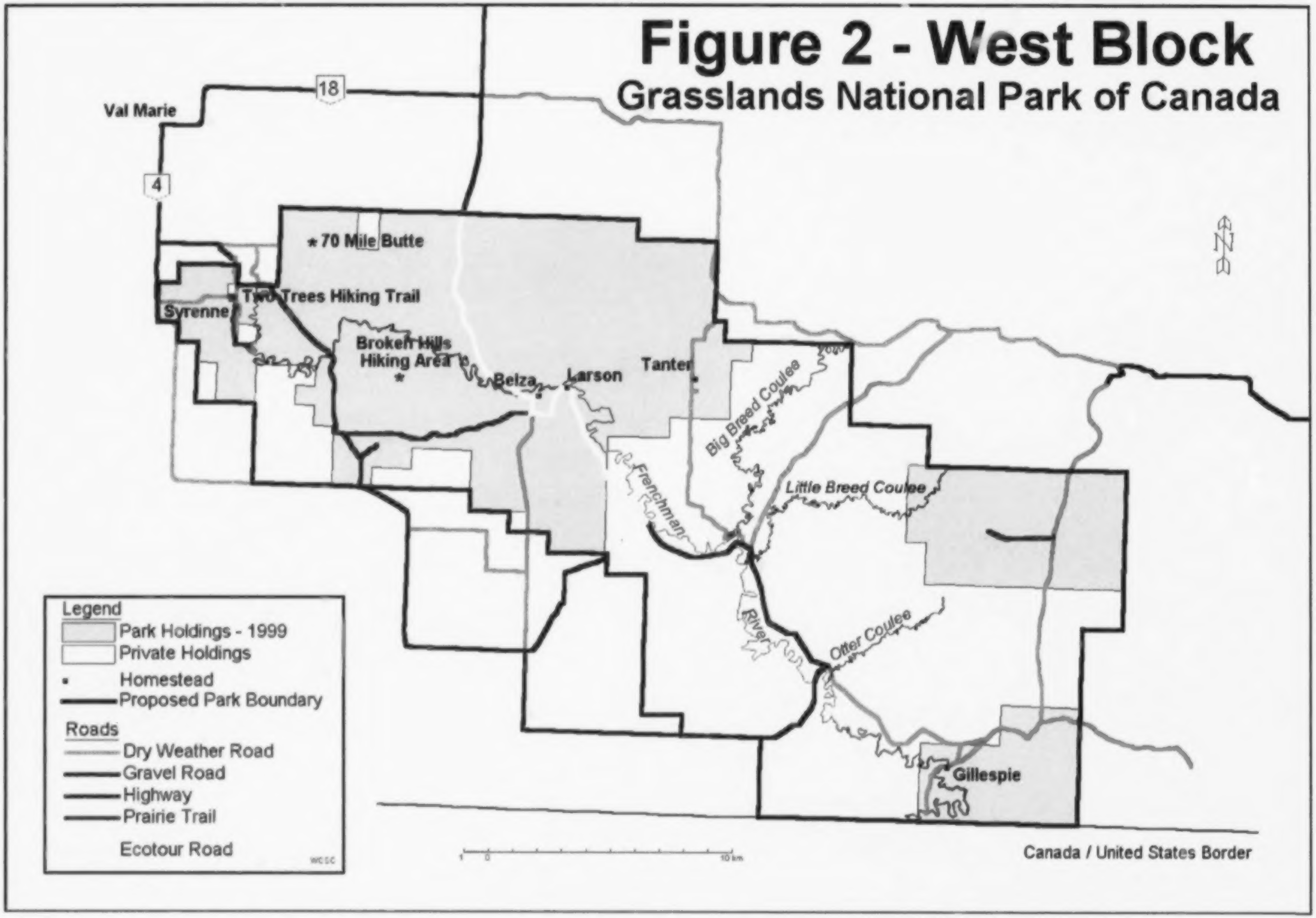


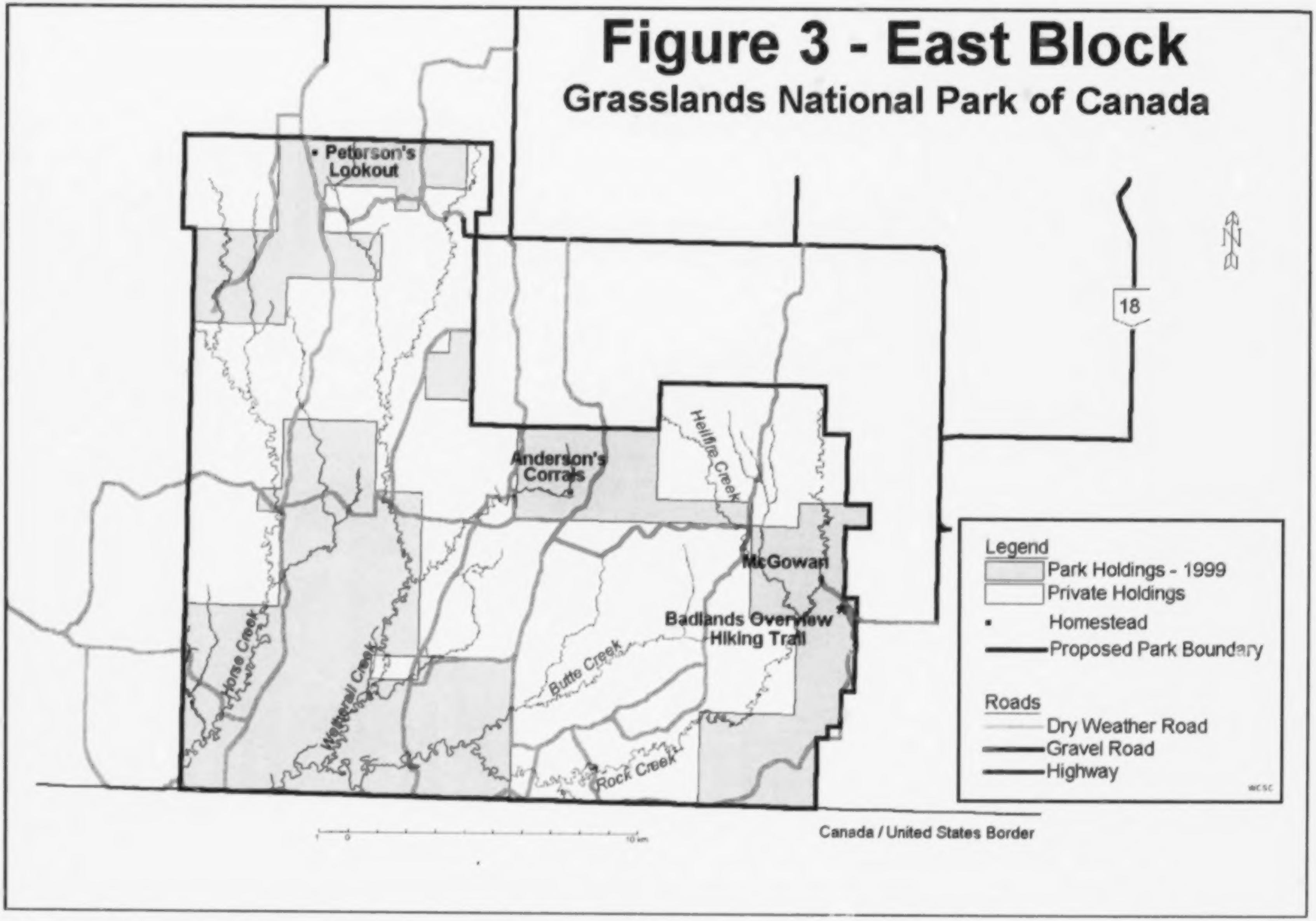
Figure 2 - West Block

Grasslands National Park of Canada

Val Marie
18
4
* 70 Mile Butte
Two Trees Hiking Trail
Syrenne
Broken Hills Hiking Area *
Belza
Larson
Tanter
Big Breed Coulee
Little Breed Coulee
Frenchman
River
Otter Coulee
Gillespie
N
1 0 10 km
Canada / United States Border
Legend
Park Holdings - 1999
Private Holdings
Homestead
Proposed Park Boundary
Roads
Dry Weather Road
Gravel Road
Highway
Prairie Trail
Ecotour Road
WCSC

Figure 3 - East Block

Grasslands National Park of Canada


Peterson's Lookout
Anderson's Corrals
Hellfire Creek
McGowan
Badlands Overview Hiking Trail
Horse Creek
Wetherall Creek
Butte Creek
Rock Creek
18
N
Legend
Park Holdings - 1999
Private Holdings
Homestead
Proposed Park Boundary
Roads
Dry Weather Road
Gravel Road
Highway
WCSC
0
10 km
Canada / United States Border

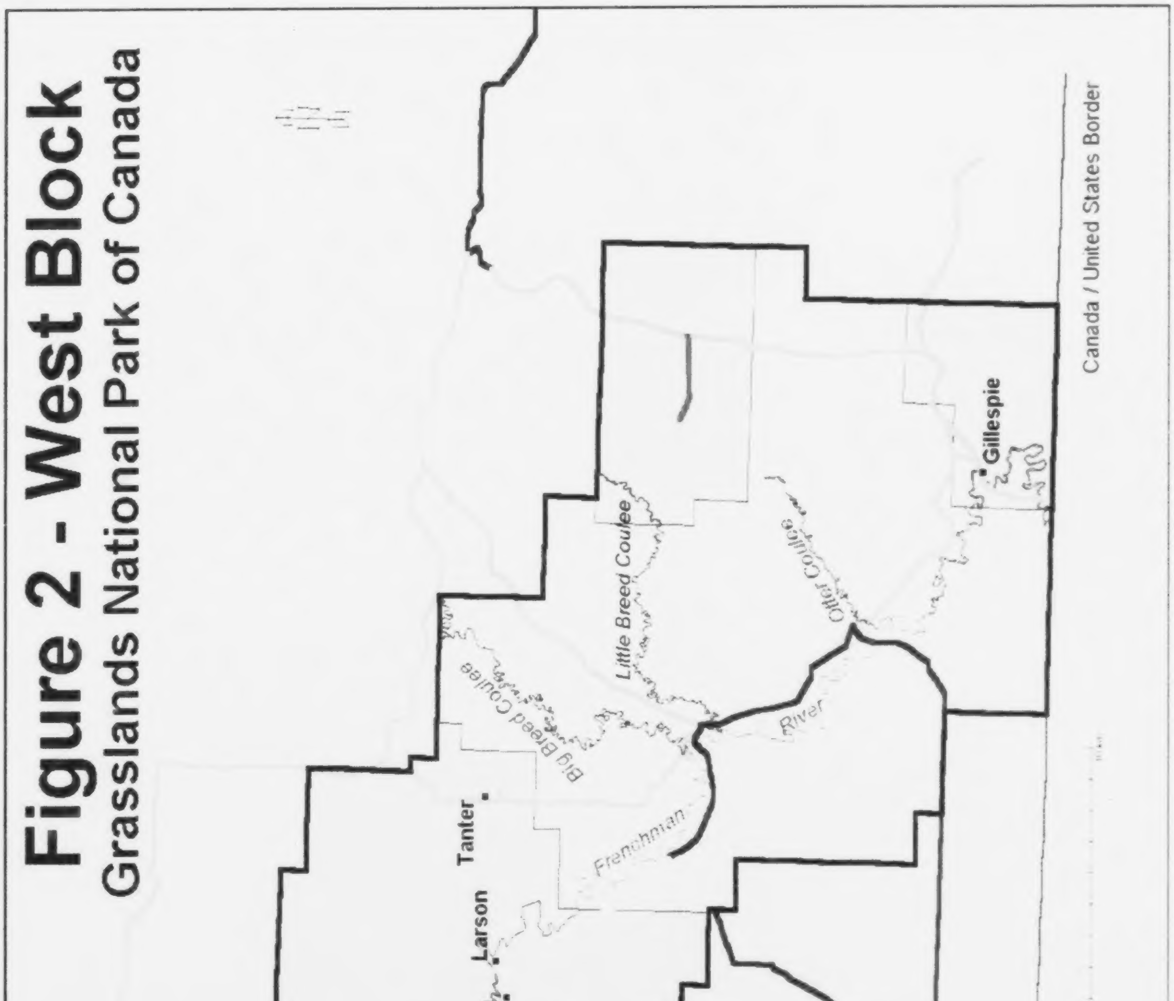
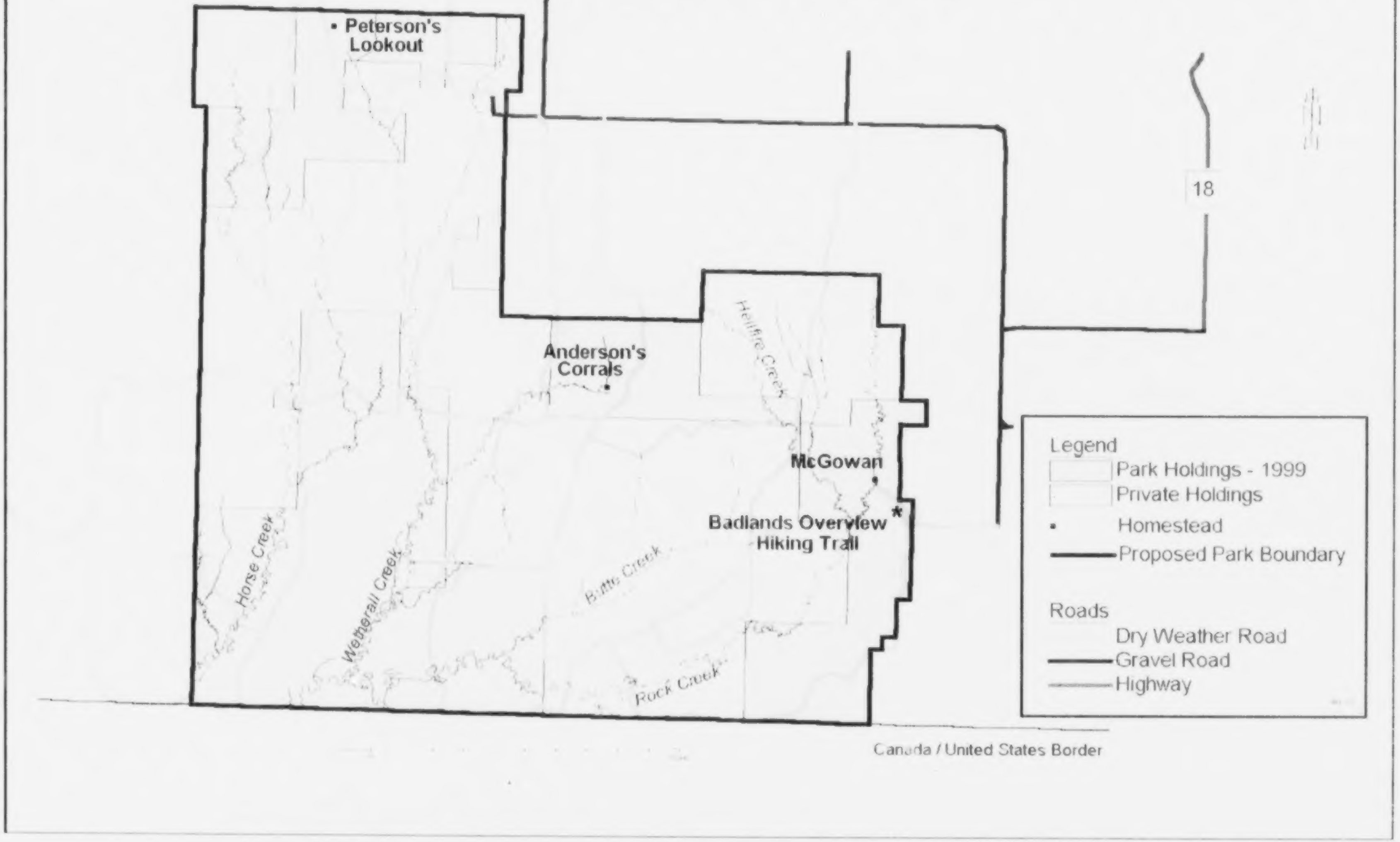


Figure 2 - West Block
Grasslands National Park of Canada

Val Marie
4
18
Syrenne
Two Trees Hiking Trail
70 Mile Butte
Broken Hills Hiking Area
Belza
Larson
Tanter
Frenchman
Big Breed Coulee
Little Breed Coulee
River
Otter Coulee
Gillespie
Canada / United States Border
Legend
Park Holdings - 1999
Private Holdings
Homestead
Proposed Park Boundary
Roads
Dry Weather Road
Gravel Road
Highway
Prairie Trail
Ecotour Road

Figure 3 - East Block

Grasslands National Park of Canada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Hellfire Creek
McGowan
Badlands Overview Hiking Trail
Horse Creek
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Highway

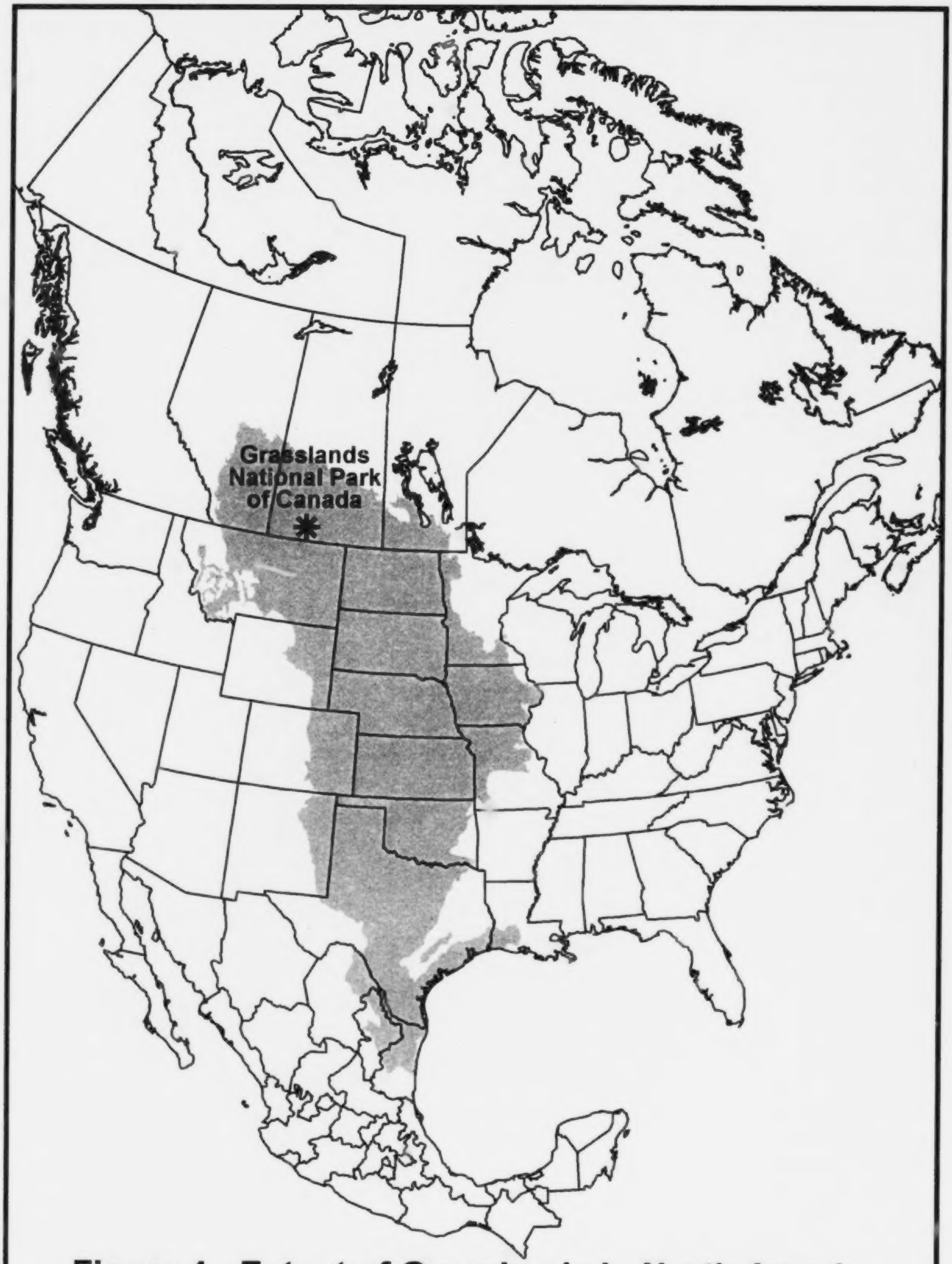

Grasslands
National Park
of Canada

Figure 4 - Extent of Grasslands in North America

(Source: Commission for Environmental Cooperation. 1997. "Ecological Regions of North America: Towards a Common Perspective." CEC, Montreal, Quebec. 72pp. ISBN 2-922305-18-X.)

both short and mid-height grasses. Early European explorers to this region described the grasslands as endless and vast.

Prior to European settlement, the Great Plains supported millions of bison, pronghorn antelope, elk, waterfowl and other species. Grazers such as bison and antelope were dominant on the landscape. Their grazing, trampling, and wallowing created trails of hard-packed earth, stripped vegetation, and increased soil erosion.

Humans on the Landscape

The Great Plains are largely a human-shaped system. Fires set by the first peoples in the area influenced the vegetation, animals and humans in many complex ways. Overall, the Canadian prairies entered an era of rapid ecological transformation in the mid 1880s as bison faded from the prairies. The first European settlers realized the prairie soil was some of the most productive in the world.

Today, the prairie grasslands are among the largest farming and ranching areas on earth. Agriculture is the most important economic activity as well as the dominant land use and the main stressor for this ecological region.

2.6 Grasslands' Role in Conservation

Grasslands National Park fits into a broad network of protected areas, including parks, ecological reserves, wildlife refuges, and other designated conservation areas. Together, these areas have an impact greater than the sum of their parts. They protect a wide range of natural regions, culturally significant areas, wilderness landscapes, and seascapes across the globe. They anchor the sustainability concept, illuminate careful land use planning, and serve as a catalyst for ongoing conservation efforts both inside and outside the areas they protect.

Regional

At the regional level, Grasslands National Park is one part of broader prairie conservation efforts aimed at maintaining and enhancing the integrity of the Prairie Grasslands Natural Region. For example, the park is a partner in the Prairie Conservation Action Plan, a five-year blueprint for action to conserve native grassland in the prairie provinces. The park is particularly notable because it has many endangered and threatened species and protects several species at the northern limit of their range, such as the black-tailed prairie dog.

National

Grasslands National Park is part of the national system of protected heritage areas. The park is Canada's only national park that protects the Prairie Grasslands Natural Region. It is an important part of a group of grassland protected areas found in British Columbia, Alberta, Manitoba and Ontario.

Grasslands National Park plays a role in continental strategies, which aim at creating a representative system of connected, protected areas throughout North America.

Global

Grasslands National Park plays an important role in the global conservation picture. The park is part of worldwide network of protected areas involved in the protection of native grassland ecosystems. Globally, less than 1% of the temperate grassland biome is included in formal protected areas.

The temperate prairies occupy 785,400 sq. kms of land in North America. Roughly 2 million ha or 2.6% of North American temperate prairie is in some form of protected area. For example, thirty-two national protected areas in the United States protect prairie ecosystems totaling about 110,500 ha. Immediately across the United States - Canada border, there are large tracts of public land managed by the United States Bureau of Land Management. These lands are managed for multi-use, including conservation. Grasslands National Park can play a role in linking similar conservation efforts on both sides of the border.

On a broader scale, Canada is committed to the vision of a worldwide system of protected areas, an idea championed by international conservation agreements such as the Convention on Biological Diversity and the international report of the Bruntland Commission. Grasslands National Park protects important grassland biodiversity and natural processes and fulfills a role in this worldwide system of protected areas.

The Important Bird Areas (IBA) program, an initiative of BirdLife International, is coordinated in Canada by Bird Studies Canada and the Canadian Nature Federation. The objective of the program is to identify a global network of sites that are of exceptional significance to birds, and to determine whether conservation measures are needed for these sites. Grasslands National Park has been nominated as a potential IBA under the threatened species and biome-restricted categories.

2.7 Vegetation

The mosaic of landscapes, plant types, and communities that makes up this natural region has one element in common - grass.

The mixed-grass prairie is the most extensive grassland type on the Great Plains.

Vegetation and Landscape Type

Vegetation of Grasslands National Park can be grouped according to associated landscape type:

- **Upland Prairies**: The most noticeable plants are wild needle-and-thread grass (a mid-sized, cool season species) and blue grama grass (a short, warm season species).
- **Broad Valleys**: Sagebrush, greasewood, and prickly pear cactus form a low vegetative layer, while creeping juniper shelters many of the slopes. Western wheat grass is common.
- **Badlands**: Eroding badland areas are sparsely covered except for juniper, rose, and a selection of species from the goosefoot family.
- **Rivers and Streams**: Buckbrush and shrubby cinquefoil provide dense cover. Thorny buffalo berry and willow form a tall shrub layer along the banks of

creeks and rivers. Deep coulees, especially in the East Block, support stands of trembling aspen and Manitoba maple.

Box 2.1 - Water - Key to Understanding Grasslands

In a grassland, the sun and wind can evaporate more water during an average year than the clouds can bring as rain or snow.

Trees and most shrubs do not survive the frequent droughts and fire of this climate.

The grasses that cover the ground need at least half as much rain every year as the sun can evaporate. Otherwise a desert develops. The grasses put only a tenth of their new growth into leaves and seed every year. The rest is sent underground to make roots for finding new sources of water.

Much of what happens in a grassland happens underground, safe from the drying effect of the sun and wind.

Grasslands National Park receives roughly 300-330 mm of precipitation every year. For comparison, annual precipitation in the boreal forest ranges from 500-1000 mm and in the coastal forests, from 1000-2000 mm.

Droughts of 50 days or longer occur during the growing season every 5-10 years.

Also common in the park are June grass, western wheatgrass, dry land sedges, spikemoss and lichens. The latter two form an almost complete ground cover below the short grasses. Prairie crocus and moss phlox are evident in the springtime. A variety of legumes and composite flowers, including the very rare Bessey's locoweed and Dwarf fleabane, are visible throughout the summer.

The Land Around the Park

Grasslands National Park sits in the midst of an extensive block of uncultivated land. In an area of approximately 16,800 sq. km around the park, approximately 63% of the land is uncultivated (Figure 5).

Much of the uncultivated land is clustered around the proposed park boundaries and in a corridor of native prairie that follows the valley of the Frenchman River to the Milk River in Montana.

The existence of this north/south corridor of land, much of it uncultivated, is important in the conservation of populations of black-tailed prairie dogs, yellow-bellied racers, eastern short-horned lizards, and other locally rare species at the northern edges of their distribution.

Most of the native grassland around the park is controlled by the federal and provincial governments of Canada and the United States (Figure 6). In the United States, approximately 31% of the land immediately south of the park is owned by the federal or state government. It is unlikely that this land will be plowed, given the current political and socio-economic climate. For example, Prairie Farm Rehabilitation Administration (PFRA) community pastures have recently been included in the Saskatchewan Representative Areas Network of Protected Places. Although the specific implications of this development are still emerging, it should ensure that all the native prairie managed by PFRA will never be cultivated.

2.8 Wildlife

The prairie grasslands were once home to huge bison herds. Recent estimates place their numbers on the Great Plains at approximately 30 million head during the 15th century. As bison tend to move, great concentrations of the animals would have been found at times in the park region. Large numbers of pronghorn antelope, mule deer, and elk also roamed the grassy wilderness, as well as, the prairie grizzly, prairie wolf, cougar, and other predators.

Today, although some of these species are extinct or extirpated, the park area is still rich with animals both large and small. Roughly 300 species of wildlife currently spend all or at least a part of their life cycles in the park.

Of the larger mammals, pronghorn antelope and mule deer are commonly seen. Elk are rare but becoming more common in the East Block.

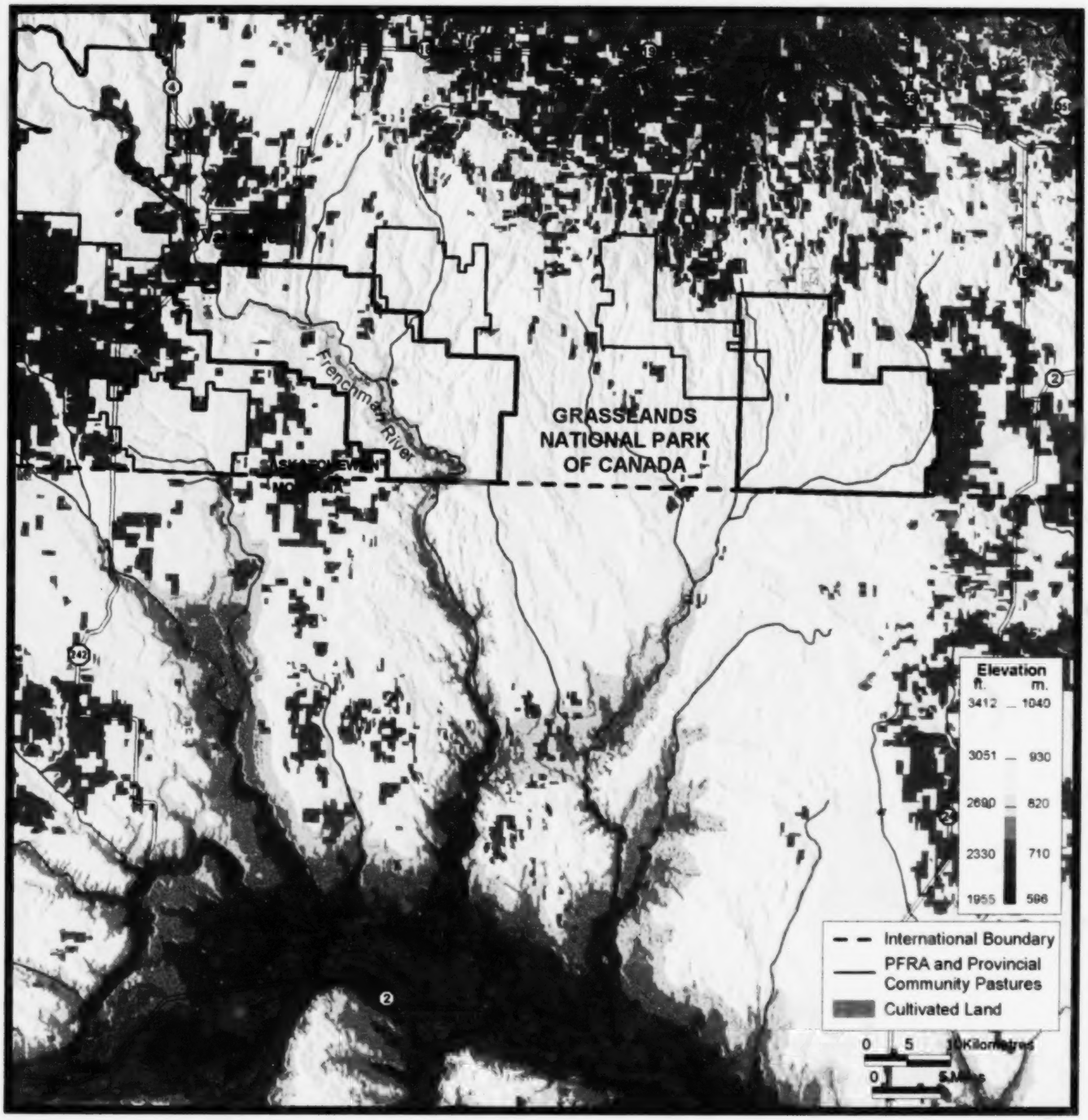
Among small mammals, black-tailed prairie dogs are commonly seen in the park. The West Block's Frenchman River valley and vicinity is the only place in Canada where this species may be seen in its natural habitat. Other small mammal species include the bobcat, coyote, badger, skunk, porcupine, mink, long-tailed weasel, white-tailed jackrabbit, and the Richardson's ground squirrel.

Roughly 190 bird species make seasonal or permanent use of the park, including some 20 species of raptors. The park is home to sharp-tailed and sage grouse, prairie falcon, golden eagles, hawks, meadowlarks, Sprague's pipits, Baird's sparrow, and burrowing owls.

The park boasts a small population of prairie rattlesnakes, as well as several winter denning sites in the West Block. Other reptile and amphibian species include the eastern short-horned lizard, the eastern yellow-bellied racer snake, leopard frogs, and painted turtles.

The Frenchman River and Rock Creek are the main aquatic habitats in the park. Fish in these waters include stone cats and darters, and minnow species such as lake chub, finescale dace, and shiners.

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has listed the level of jeopardy faced by some of the species that inhabit the mixed-grass prairie region of Saskatchewan. These species are identified in Table 3.3. Examples of the species that have been extirpated from the park area include the grizzly bear, black-footed ferret, and the greater prairie-chicken. Examples of wildlife in the endangered category in the park area are burrowing owls, mountain plover, sage grouse, and swift fox. There is currently a swift fox re-introduction program occurring in and around the park, aimed at establishing a self-sustaining population. The loggerhead shrike, found in the park, is an example of a threatened species. Examples of species considered to be vulnerable include the black-tailed prairie dog, the eastern yellow-bellied racer snake, and the ferruginous hawk.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Frenchman River
SASKATCHEWAN
MONTANA
4
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19
2
242
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Elevation
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m.
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1040
3051
930
2690
820
2330
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596
International Boundary
PFRA and Provincial Community Pastures
Cultivated Land
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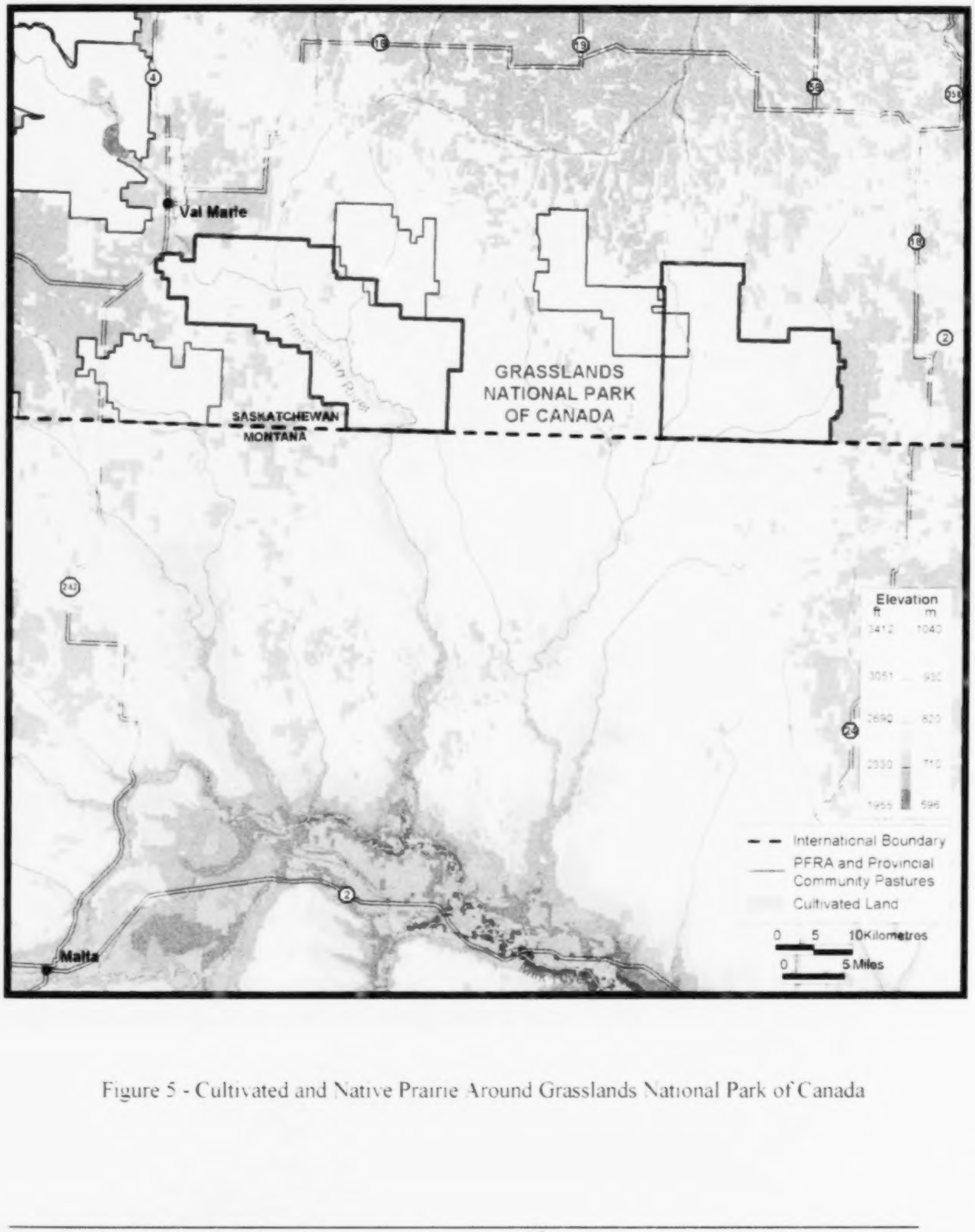
5
10 Kilometres
0
5 Miles

Figure 5 - Cultivated and Native Prairie Around Grasslands National Park of Canada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NATIONAL PARK
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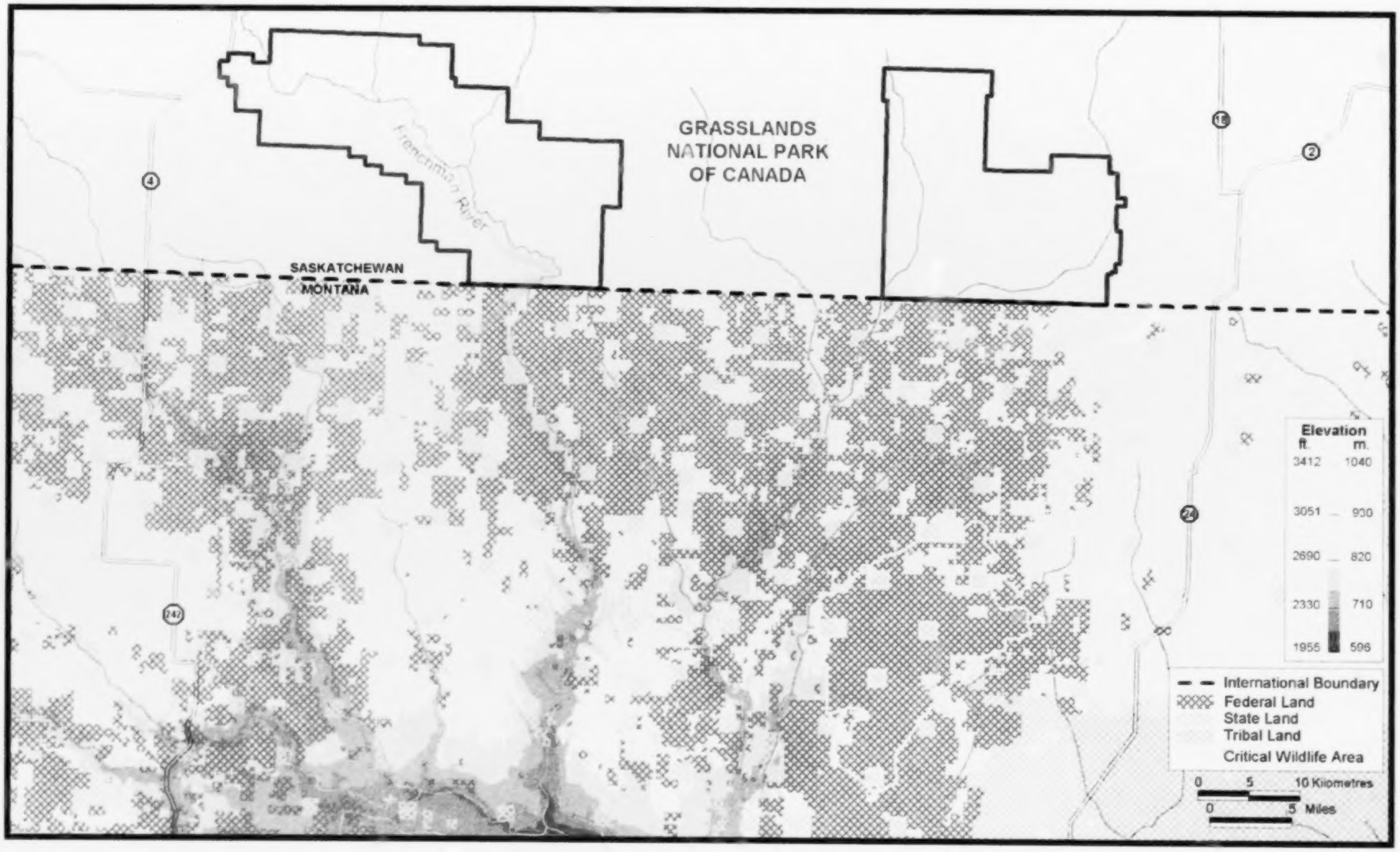
Figure 5 - Cultivated and Native Prairie Around Grasslands National Park of Canada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2330 710
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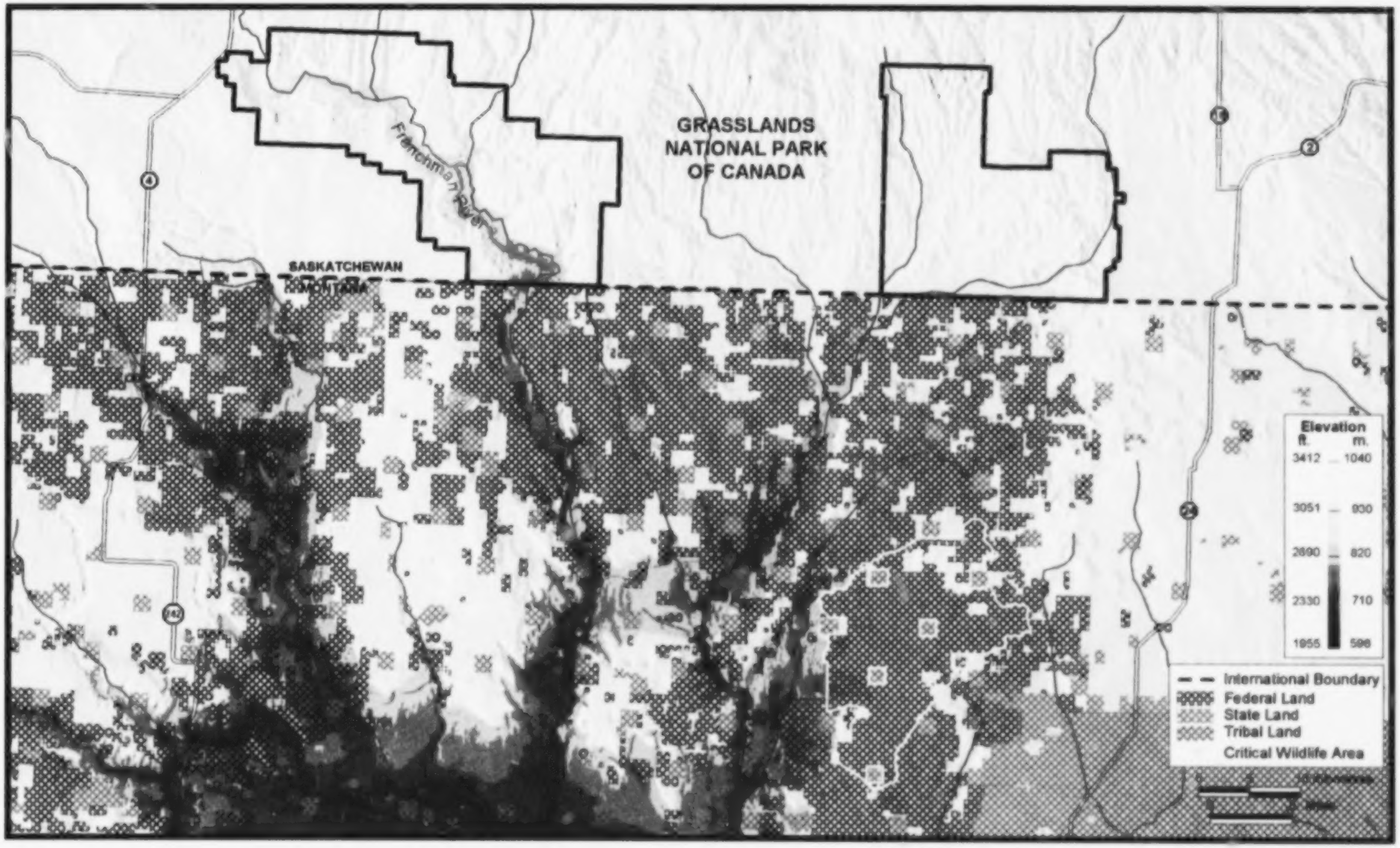
International Boundary
Federal Land
State Land
Tribal Land
Critical Wildlife Area
0 5 10 Kilometres
0 5 Miles

Figure 6 - Land Ownership in the United States Immediately South of the Park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International Boundary
Federal Land
State Land
Tribal Land
Critical Wildlife Area

Figure 6 - Land Ownership in the United States Immediately South of the Park

Box 2.2 - Primer on Ecosystems

An ecosystem is the combination of all the living things in a region and the environment in which they live and interact.

A grassland ecosystem, for example, includes all creatures that live in the region, from soil mites to antelope. It also includes the environment that these creatures live in, such as the amount of sunlight that shines and rain that falls, and the geography of the area.

Processes

An ecosystem process is how energy or material, such as sunlight or water, moves or changes in the ecosystem.

For instance, sunlight provides energy that grasses use to grow and reproduce. Some of this energy is stored chemically in the grass. When the grass is eaten by an animal, the animal uses this energy to grow, move about, and reproduce. The transfer of energy and material from the grass to the animal is an example of an ecosystem process called grazing.

Predation, wildfire, and flooding are other examples of ecosystem processes.

Rates

Ecosystem processes can occur at different rates. The rate determines the amount and types of plants and animals that can live in that ecosystem. Rates of ecosystem processes determine whether an ecosystem is a peat bog, a grassland, or a forest.

In the case of grazing, many animals returning to a patch of grass frequently would represent a high rate for this particular ecosystem process. A few animals returning to a patch of grass infrequently would represent a low rate for the process.

Controlling the rate of an ecological process such as grazing is one way park staff will manage the ecosystem of Grasslands National Park.

2.9 Human History

Starting approximately 12,000 years ago, when the last glaciers retreated from the area, and running to present times, the grasslands were home to a range of groups, including the first peoples, Métis, ranchers, and then farmers. Each group understood and used the land and its resources differently.

The First Peoples

Archaeological and historical studies show that the park area was occupied by every pre-European group known to inhabit the plains of southern Saskatchewan for the past 12,000 years.

Various Aboriginal groups lived throughout the region, usually in small family bands that often met in larger groups for hunts and festivities. They were highly accomplished hunters and gatherers.

Bison were central to their lives, providing their most important means of subsistence, affecting their relationships, and shaping their spiritual beliefs.

Aboriginal people left behind an extraordinary archaeological record in the park. To date, there are thousands of reported archaeological sites, the most numerous of which is the tipi ring camp.

Bison drive lanes are also prominent features in the area. They consist of linear rock piles that would funnel bison toward kill sites or cliffs where waiting hunters could kill them. One lane in the East Block extends for at least 15 km.

The remains of tools, weapons, and worship sites are also found throughout the park. They range from hide scrapers and hunting weapons, to food cairns, ceramics, and medicine wheels. Their imprint on the land is so important that a submission has been made to the Historic Sites and Monuments Board to consider the precontact resources of Grasslands National Park for their national significance.

Métis

Métis presence in the area dates back to the *hivernant* wintering camps associated with the buffalo hunts from Red River in the 1850s. *Hivernements* (camps) were situated outside the park boundaries in areas along the Frenchman River, which was known by the Métis as *la coulée de la rivière Blanche*. In the 1860s Roman Catholic missionaries began visiting Métis families in the area. During the 1870s and 1880s there were over 200 families in the vicinity pursuing a mixed economy of hunting and trading. There are still many ranching families with Métis heritage in the park area.

End of the Bison Era

Bison sustained at least four different Aboriginal groups that occupied the area into the 1800s. Later in this period, approximately 5,000 Dakota entered the park area from the United States following conflicts with Custer's troops.

While hunting and trading were still the primary economic activities, there were signs of change, including the famous Palliser expedition of 1847-1848. Palliser was sponsored by the government to determine the region's material resources, its climate, and its potential for construction of a railway. This and later expeditions by Palliser provided the first reliable assessment of the region's economic potential. The North-West Mounted Police established patrol trails through the park area. Early surveyors included the International Boundary Commission. After years of extensive hunting pressure, the once-huge bison herds became virtually non-existent on the Great Plains by the mid to late 1800s.

Ranching and Farming

By the 1880s, the bison economy had collapsed. In 1881, the Canadian government passed leasehold legislation to promote ranching in the west. This new way of living off the land gradually took hold. American ranching companies, including the "76" and "Turkey Track," divided the unfenced landscape into huge ranching operations. A series of hard winters, followed by a massive die-off of cattle in the winter of 1906-1907, challenged the concept of ranching on the open range and forced many corporate ranches to amalgamate.

The *Dominion Lands Act* was amended shortly afterwards and encouraged homesteaders to farm the Canadian prairies. Of the large ranching operations, only the "76" ranch survived the land rush that followed. From that point on, barbed wire became an essential tool as ranchers began to share the land with farmers. Smaller land holdings followed and remain to this day.

The story of farm homesteading in this part of Saskatchewan is one of struggle. Homesteaders came relatively late to what were the poorest and least desirable croplands in southwestern Saskatchewan, and the last to be settled in the west. New dryland farming techniques, such as new crop varieties, summer fallow and genetically bred forage seed (crested wheat grass), were promoted in support of this new era. Cultivation in this area was difficult, especially after two prolonged droughts. Many of the original homesteaders left, some after only a few years of working the land. Today, cultivation is widely considered to be unsustainable in this area.

2.10 Park Visitation

The park hosted an estimated 500 visitors a year until about 1990, when visitation began to steadily increase. Present levels are over 5000 visitors a year, mainly in June, July, and August.

Nearly 30% of all visitors come from Saskatchewan, 30% from British Columbia/Alberta, and 15% from outside Canada. Approximately 50% of visitors are between the ages 35 and 54. Visitor party size averages 2.3 people—somewhat lower than for other national parks.

Park Use

Presently, park use can be grouped under the following activities:

Visitor reception: Most park visitors stop at the Administration Building at Val Marie, as part or all of their Grasslands National Park experience. Visitors consistently identify the interpretive and orientation services at the Information Centre as a key part of their park visit. East Block reception is provided by the Rodeo Ranch Museum near Wood Mountain.

Day-use: Day uses, such as sightseeing, auto touring, and hiking are by far the most popular activities in the park, and are expected to remain so.

Day hiking: Grasslands National Park's landscape is well suited to day hiking. There is one designated hiking trail in each block, along with many prairie trails and former ranch roads that provide access throughout the park. Approximately 80% of visitors walk or hike in the park.

Overnight backpacking: Approximately 2% of visitors engage in overnight backpacking.

Nature and culture appreciation: Wildlife viewing, bird watching, photography, and exploring the native prairie vegetation communities are important parts of the Grasslands National Park experience. Nearly 75% of comments in visitor surveys mention wildlife and the scenic aspects of the landscape, followed by archaeological and other cultural resources.

Horseback riding: Horseback riding is a traditional form of recreation in the Grasslands National Park area. The park provides an excellent setting for riding, both private and commercial.

East Block visits: The East Block is relatively undeveloped and offers few visitor amenities. Roughly 10% of Grasslands National Park's recorded visitation occurs here.

2.11 Challenges to the Park's Ecological Integrity

Human activities are carefully managed in our national parks because unimpaired park ecosystems are desired for current and future generations to experience, appreciate, and study.

Park ecosystems that are not significantly impaired by human activities are said to have high ecological integrity. Achieving that goal will mean sustaining the diversity of life forms and processes that the park is intended to represent. It may also mean restoring an ecological process or reintroducing a species to increase ecological integrity.

Challenges to achieving ecological integrity for Grasslands National Park of Canada are summarized below, to set the stage for the strategies that address them later in the plan.

Cultivated Land

The area in and around Grasslands National Park has changed since settlement by Europeans. The largest change has been cultivation to grow cereal and forage crops. While the region around the park has been cultivated less than most other Saskatchewan prairie, there are still large areas of plowed soil.

Of the park land acquired to date, 1.2% (522.2 ha) continues to be cultivated for the production of cereal crops. Continued cultivation of this land is a short-term management strategy to control the invasion of perennial exotic grasses until the land can be revegetated with native species.

In the last 10-20 years, cultivation has been discontinued on an additional 1.0% (414.5 ha) of park land that is still dominated by annual plant species. There also has been some invasion by exotic perennial grasses such as crested wheat grass.

Exotic Plants

At least 24 exotic (non-native) plant species have been reported in the park area. Most of these species have not, as yet, displaced the dominant native plant species.

However, three exotic perennial grasses—smooth brome, crested wheat grass, and Russian wild rye—are of concern because they were used as hay/pasture species and continue to dominate the areas where they were seeded.

The total area occupied by these species is 1.4 to 1.8 % (600-800 ha) of the land acquired to date. Crested wheat grass and smooth brome have also invaded areas where they were not seeded. This is of immediate concern because these species are a potential threat to native prairie.

Loss and Fragmentation of Habitat

The conversion of prairie to crop land reduces the amount of habitat, and may fragment what is left, for many prairie species (Figure 5). Roads also fragment land. The combination means that rare species, or species that naturally experience fluctuating populations, are more susceptible to local extinction.

The park and the immediate region are some of the more intact grassland areas remaining in Canada. Monitoring the degree of fragmentation of habitat will be an important element in park management. Protecting only the park land is not sufficient to maintain the integrity of the system. Cooperation among the many jurisdictions, landowners and others is crucial for the long term survival of the park.

Species Reintroduction

Such species as the prairie wolf, plains grizzly bear, swift fox, and black-footed ferret have been completely removed because of hunting, trapping, or efforts to control other species.

Some species, such as the swift fox, are being reintroduced while others need to be evaluated for their potential for reintroduction.

Fire and Grazing

The replacement of bison with cattle and the suppression of prairie wildfires has altered the way native grasslands are structured. Parks Canada's recent policy of eliminating cattle grazing as land is acquired has almost entirely removed the influence of large animal grazing from park lands.

The challenge is to develop fire and grazing "prescriptions" that help restore the ecological integrity of the park.

Examples of Additional Challenges

There are additional challenges to the ecological integrity of Grasslands National Park (Table 2.1).

Table 2.1 Examples of Additional Challenges to Ecological Integrity

Challenge	Description	Significance
Exotic Organisms		
Exotic birds and mammals	• Starlings, pheasants, Norway rats, and raccoons are some examples found in the park.	• Exotic species may affect native species. The challenge should become less prevalent as habitats that support exotic species, such as fields and abandoned buildings disappear in the park.
Exotic micro-organisms	• Sylvatic plague was introduced to North America by rats on ships in the late 1800s. It has been responsible for major die-offs of black-tailed prairie dogs. Antibodies occur in dogs and cats in the park area and it is likely the disease is present in some unknown animal reservoir.	• Plague poses a significant threat. It was responsible for a 80% decline in the prairie dog populations of south Phillips County, Montana in the early 1990s.
Habitat Changes		
Cultivation of native prairie outside the park	• In the past, extensive areas of native prairie were plowed for cereal and forage production.	• Large areas around the park have been plowed, but changes in economics suggest that little new land will be plowed and that cereal crop production will shift to forage production.
Gravel extraction	• Gravel is mined for local road maintenance. Derelict and active mines are found in and around park.	• Total area affected is small and land could be restored.
Economic Changes		
Oil and gas extraction	• Considerable amount of drilling has occurred in southwestern Saskatchewan. A major natural gas pipeline passes to the west of the park. No oil or gas extraction occurs on private land within park boundaries.	• Roads to support well drilling and production increase habitat fragmentation. Drilling activity has the potential to disrupt nesting of sensitive species such as ferruginous hawks and eagles if poorly planned.

Table 2.1 Examples of Additional Challenges to Ecological Integrity

Challenge	Description	Significance
Road construction and maintenance	- Main roads through the park may need to be graded, oiled or surfaced. Ditches may need to be cleared.	- Cultural and natural resources can be disturbed by soil removal or the erosion of weakened ditch edges. Fragmentation of the ecosystem is increased.
Subsurface linear features	- The prairies are increasingly criss-crossed by buried pipelines and electrical and communications cables. Old cables need maintenance, and new ones may be added. Vehicles need to gain access to these sites.	- Cross-country vehicular traffic and excavations for pipelines and cables can be extremely harmful to cultural resources. These features also contribute to fragmentation of the ecosystem.
Toxins and Pollutants		
Aerial deposition of nitrogen	- Agricultural practice has increased the rate that nitrogen is deposited.	- Fertilizer effect of nitrogen may increase prevalence of exotic plants. Since vegetation production in Grasslands is typically restricted by moisture, fertilizer effect is likely reduced.
Organic waste	- Human and animal waste inputs into streams and Frenchman River.	- Magnitude of effect on water quality is unknown.
Pesticides and herbicides	- Spraying of weeds and insect pests occurs around the park.	- Spraying occurs but to lesser extent than in more productive soil zones. Usage is expected to decline as cereal production shifts to forage production. However, on remaining crop land, chemical fallowing is becoming more common.
Dams		
Flow regulation	- Frenchman River has been flow regulated with dams and reservoirs for nearly 65 years.	- Flow regulation likely has reduced the frequency and severity of flooding which would affect channel dynamics and riparian vegetation.

Table 2.1 Examples of Additional Challenges to Ecological Integrity

Challenge	Description	Significance
Global Change		
Climate change	• Greenhouse gases such as carbon dioxide and methane are having a warming effect on climate.	• Prairie climate changes, including drought and windstorms may occur. A north-south system of refuges and corridors may be essential to conserving species during a rapid habitat shift. • Changes to wind and precipitation could threaten cultural resources.
Ozone depletion	• The decrease in the protective ozone layer is allowing increases in harmful Ultraviolet-B (UV-B) radiation.	• UV-B may be a significant stressor, especially for amphibians and lightly pigmented species.

3. Natural and Cultural Resource Management

Subsection 4(1) of the *Canada National Parks Act* states:

> *Maintenance or restoration of ecological integrity, through the protection of natural resources and natural processes, shall be the first priority of the Minister when considering all aspects of the management of parks.*

The first priority of the Minister, when considering all aspects of the management of Grasslands National Park, is the maintenance or restoration of ecological integrity, through the protection of natural resources and natural processes. Parks Canada is also committed to the protection of cultural resources in national parks.

This section explains how Parks Canada plans to meet its mandate in managing and protecting the diverse collection of natural and cultural resources that characterize Grasslands National Park.

An ecosystem-based approach to park management, which takes a holistic view of the environment, will be used to manage natural and cultural resources in the Grasslands National Park ecosystem.

3.1 Integrating Management of Natural and Cultural Resources

Managing Grasslands National Park presents some special challenges in protecting natural and cultural resources.

The park enjoys an outstanding array of cultural resources. Evidence of the lives of the first peoples and European settlers is recorded in the rocks, soil, and vegetation, often in ways that make it inseparable from the natural features of the park.

It is important to ensure that resource management in Grasslands National Park recognizes this connection. Parks Canada is committed to integrated resource management that embraces an adaptive management approach.

As cornerstones of this approach, Parks Canada will apply the following management principles:

- set goals and objectives that clearly state what is important to the park and why;
- make sure that all heritage resource values are respected and considered by a multi-disciplinary team when management decisions are made;
- involve key stakeholders in valuing resources and contributing to important management decisions;
- exercise vigilance in the quality of scientific research, traditional knowledge, and historical study that support our work;
- monitor, document, evaluate, and communicate the results of management actions and adjust management accordingly.

STRATEGIC GOAL

- To integrate the management of cultural and natural resources and ensure their protection for future generations of Canadians.

KEY ACTIONS

1) Ensure that the management of visitor activities is integrated into natural and cultural resource management to the greatest possible extent.
2) Continue cultural and biophysical resource inventories as land is acquired.
3) Develop, early in the plan's implementation, a cultural resource and ecosystem monitoring program.
4) Train park staff in the techniques of integrated resource management.
5) Develop and implement a consultative process with an ongoing advisory committee (see section 5.4) to ensure that stakeholder perspectives are reflected in management decisions.
6) Solicit professional input, through an annual workshop, on current ecosystem management issues.
7) Report on natural and cultural resource management and research activities. This will occur annually and feed into the park's annual report (see sections 4.6.3 and 5.6).
8) Conduct an integrated, comprehensive review of the cultural and natural resource management program every five years to support the State of the Park Report (see section 5.6) and the review of the management plan.

3.2 Managing Grazing

Large animal grazing is an important source of disturbance that has been excluded from the park. There is agreement among many scientists and natural resource managers that some level of grazing disturbance is necessary to assure the ecological integrity of the mixed-grass prairie ecosystem. It is not possible to restore all the elements of the pre-European grazing regime within the park. The pattern of grazing by large herds of bison moving around an intact Great Plains cannot be fully replicated in the relatively small parcels of land that comprise the park. By examining the range of grazing effects that are occurring on the rangelands around the park, management in the park can be adjusted to complement what is occurring outside the park. This will be accomplished by emphasizing within the park aspects of the pre-European grazing regime that are under-represented in the surrounding more conventionally managed rangelands.

Cattle grazing is a common land use on native prairie around the park. Grazing is typically at low density and as evenly distributed as possible. Although the general rule of thumb for grazing is to take half and leave half of the standing vegetation, the actual grazing practice will vary with the grazing system used, weather, and paddock configuration. Bison in a pre-European prairie would not have grazed the range in a uniform manner. Based on early explorer accounts of bison and research on other wild animal grazing systems, it is likely that bison would have grazed more irregularly, with heavy grazing and trampling in some areas and longer periods of rest between grazing. To better represent this pattern, Grasslands National Park will be purposefully managed to have relatively small areas that are grazed intensely for short durations while large areas are infrequently grazed.

Box 3.1 - What Do We Mean By Adaptive Management?

Adaptive management is an approach for generating and using information to make sound ecosystem management decisions. It is learning by doing. A key feature of adaptive management is the recognition that ecosystems are complex and that their response to management is difficult to predict.

When management can be adjusted rapidly, a more elaborate ecosystem management decision-making process can be applied. In these cases, management would use a planning cycle that includes these elements of a research experiment:

- hypotheses are formulated using best available information;
- the likely ecosystem response is predicted;
- a sampling design is developed and the management action is applied systematically;
- ecosystem response is monitored and evaluated;
- if the response is contrary to predictions, the information gained is used to reformulate hypotheses, management practices are adapted, and the process is repeated.

The reintroduction of large grazers into the park is an example from this plan of ecosystem management intervention that is well-suited to an adaptive management approach.

3.2.1 Grazing Prescription

Based on the known behaviour and population fluctuations of bison, an area the size of the park may have remained ungrazed for periods ranging from 3-35 years. Parks Canada will represent this regime by grazing a range of 3-33% of the park land moderately each year at the recommended stocking rate (Table 3.1).

The park will also be used to represent brief periods of intensive grazing. Within the grazed lands mentioned above, 0.1-2% of the park area will be intensively grazed. This combination of grazing regimes inside and outside the park will result in a greater range of grazing effects in the region, with the park representing that portion of the landscape that historically experienced the least frequent grazing. Collectively, the region will have better representation of the large animal grazing that was part of the evolution of the mixed-grass prairie.

The above prescription for grazing provides the strategic direction for the grazing program. A grazing management plan will be needed to work out the specifics. Factors that must be considered include: limiting dispersal of exotic plant species, the context of individual land holdings, distribution of water and

Table 3.1 Prescription for Grazing

Disturbance	Targeted Range or Trend
moderate grazing	3-33% of park land grazed such that 35-45% of non-woody above-ground forage is removed annually
intense grazing	0.1-2% of park land grazed such that 90% of non-woody above-ground forage is removed or trampled in a short time - less than 2 weeks/patch

Box 3.2 - Ecosystem Restoration–A Special Challenge

Grasslands National Park faces restoration challenges on a scale not typical of our national parks. Which species should be reintroduced? Is it desirable, or even possible, to revegetate large areas of recently cultivated land? What role should fire, grazing, and trampling play in the Grasslands National Park of the future?

Disturbances such as animal grazing, prairie wildfires, soil erosion, and flooding are some of the strongest influences on the health and character of the prairies. Many of the disturbances were from the bison herds that once roamed the prairies. Similarly, wildfires consumed huge tracts of land. These are just two examples of the many types of disturbances that worked across the entire prairie.

Disturbances can affect grasslands in many different ways. While many of these effects can be beneficial, there is the potential for undesirable responses such as increased erosion, and the dispersal and establishment of exotic plant species. Efforts to understand the specific role of disturbances on the integrity of the prairie ecosystem will be important.

Several restoration strategies discussed here address these challenges. They chart a program of action that should ensure that restoration issues feature much less prominently in future management plans.

The different restoration projects described in the plan are closely connected. The reintroduction of grazing to the park as an important ecological process can be achieved, in part, through the reintroduction of bison as a native species. Grazing will also be used to manage exotic plant species and revegetated native prairie. Fire may play an important role in managing grazing.

The cultural significance of the landscape will be considered throughout these efforts to restore ecological integrity. For example, the presence of bison near ancient bison drive lanes will enhance the presentation of cultural resources.

fencing requirements, relative productivity (increases in plant diversity due to grazing is likely to be most pronounced where productivity is higher), susceptibility to erosion, and effect on species at risk.

3.2.2 Grazing Contingent on Results

Grazing management will be assessed on the basis of its success in enhancing the ecological integrity of the park. The focus on ecological integrity will be maintained by careful monitoring of the indicators in the Table 3.2. The indicators were developed from research programs conducted within the park and elsewhere. It is recognized that the current understanding of the prairie ecosystem is incomplete and the grazing management program in Grasslands National Park will continue to evolve as our understanding increases. Specifically, some of the indicator methodologies are still under development and may have to be dropped or replaced if cost-effective ways of measuring them cannot be found. The indicators will be reviewed on an ongoing basis.

Ground squirrels are an example of the link between the indicators and ecological integrity. An increased abundance of ground squirrels will serve as an indication that the grazing prescription is enhancing the ecological integrity of the park. Grazed land has five times more active Richardson's ground squirrel holes, compared with ungrazed park land. The presence of these ground squirrels is important because they are prey for endangered species, such as ferruginous hawks. Their burrows are also important in developing habitat for swift foxes and burrowing owls.

3.2.3 Using Bison and Cattle

Both bison and domestic grazers are available to park managers as potential tools for the grazing management program. Bison are the preferred native species for grazing management in Grasslands National Park but domestic grazers can also have a role in achieving the grazing management objectives. Of the domestic grazing animals, cattle is the species that comes to mind most quickly. Like bison, they are large generalist grazers that eat grass as the largest portion of their diet. This does not preclude other domestic grazers, like sheep or horses, from being used for specific purposes.

While bison and cattle have some similarities, there are important differences. Bison have different behaviours and grazing patterns than cattle. Bison will walk a greater distance from water, so they may select different areas than cattle. Bison withstand cold weather much better than cattle and use low quality winter forage more effectively. They are also better able to survive winters without supplemental feeding. In contrast, cattle tend to be more selective than bison, seeking out and eating broad leaf plants more often, particularly in late summer.

These differences in grazing patterns between cattle and bison are insignificant compared to the difference in grazing patterns between a very large herd of free-roaming bison and a smaller herd of bison confined to a fenced area. To successfully achieve the ecosystem management objectives through grazing, *effective management of fenced bison or fenced cattle is more important than the differences in grazing patterns between the species.*

Box 3.3 - Results Observed to Date

Over the last 10-12 years, Parks Canada discontinued grazing on land as it was acquired for the park. This gave Parks Canada the opportunity to assess what the effects of infrequent grazing are likely to be.

Compared to conventionally managed rangelands around the park, ungrazed park land is marked by:

- annual plant growth that ranges from similar to twice as productive;
- 18% more plant species in a dry year, with no clear difference in moist years;
- taller vegetation with 1.5-2 times as much standing dead biomass
- similar amounts of dead vegetation on the ground;
- different plant and animal communities. Some songbird, ground beetle and plant species are more abundant on ungrazed land, while others are more abundant on grazed land;
- much fewer active Richardson's ground squirrel holes. There are 5 times more holes on grazed land.

In addition to these effects, the proposed grazing prescription will likely produce:

- small areas of shorter grass and temporarily reduced productivity;
- higher rates of nutrient cycling;
- more opportunities for colonization by forbs and animals like ground squirrels;
- greater patchiness in the height of vegetation;
- habitat for a wider range of species.

3.2.4 Developing a Grazing Management Plan

Before implementing a managed grazing regime in the park, a grazing management plan needs to be developed. Some of the important considerations and principles that will need to be included in the plan are as follows:

- Grazing prescriptions detailed in Table 3.1 must be adhered to.
- Because of the logistical hurdles associated with reintroducing bison, including the greater expense of fence construction, bison are most appropriate for use on large blocks of land and will be considered for reintroduction in these locations.
- Domestic grazers allow greater control over grazing without the need for the development of upgraded facilities. Because they are domesticated, they are easier to manage.
- Where it is impractical to use bison to achieve the objectives of the grazing management plan, domestic grazers will be used. If a domestic grazer is being used to implement the grazing management plan, it will be replaced with bison when it becomes practical to do so. Note that under Section 3(1) of the

National Park Domestic Animal Regulations 1998, keeping domestic livestock in a park is prohibited. An amendment to the regulations will be sought to permit the use of domestic animal grazers in Grasslands National Park for the purpose of ecosystem management.

- A system should be developed that will allow Parks Canada to use privately owned domestic grazers in a way that is fair to the owners while ensuring that Parks Canada has sufficient control over the timing, number, and distribution of the animals to achieve its grazing prescription.
- The effects of grazing should be carefully monitored to see if they are having the desired effects on the ecosystem (Table 3.2). Outside research partners will be sought, and the implementation of the grazing management program may be structured to facilitate research on the effects of grazing management on the ecosystem. Of particular interest is the assessment of grazing on species that are endangered, threatened, or are species of special concern (see section 3.7).

STRATEGIC GOAL

- To manage grazing in the park that will complement the management of rangeland outside the park in a way that contributes to the conservation of native biodiversity and the ecological integrity of the regional ecosystem.

KEY ACTIONS

1) Develop and begin implementing a grazing management plan to achieve ecosystem management objectives using the grazing prescription from the park management plan as a guideline (Table 3.1).
2) Develop and begin implementing a bison reintroduction plan to achieve ecosystem management objectives (see sections 3.2.3 and 3.6).
3) Use domestic grazers to achieve ecosystem management objectives in cases where grazing has been prescribed and it is impractical to use bison (see section 3.2.3).
4) Implement a monitoring program to assess the results of bison and domestic grazing, and use the results from the program to improve grazing management (Tables 3.1, 3.2).
5) Seek outside partners to collaborate on researching the ecological effects of the park's grazing management program.

Table 3.2 Measuring Progress Towards Ecosystem Management Goals

Indicator	**Target**	
	Inside the Park	*Compared to Surrounding Region*
PRODUCTION AND NUTRIENT CYCLING		
standing vegetation	● greater variability after grazing started	● park lands have 1.3-2 times as much standing biomass on upland sites ● park more coarsely patchy
above-ground production	● greater variability after grazing started	● park shows no long-term decline
root biomass	● greater variability after grazing started	● park shows no long-term decline
soil nitrogen availability	● greater variability after grazing started	
BIODIVERSITY		
ground squirrels	● greater abundance	
songbirds	● greater prevalence of songbird species that use more intensely grazed sites	● songbird community has a different relative species abundance
plants	● greater prevalence of plant species that use more intensely grazed sites	● plant community has a different relative species abundance
insects (carabid beetles)	● greater number of species of carabid beetles	● beetle community has a different relative species abundance
exotic plants	● prevalence of exotic plants on native prairie decreasing	

3.3 Managing Fire

According to accounts of early explorers, fires were common on the mixed-grass prairie. Although it is known that fires burned here, the ecological role they played is not well understood.

It is, however, clear that fire has a less prominent role in maintaining biological diversity and ecological function in semi-arid mixed-grass prairie, such as Grasslands National Park, than in moister parts of the prairies where shrub and tree encroachment and litter buildup are common.

In Grasslands National Park's valley grasslands, where moisture levels are highest, dead grass can accumulate as litter on the ground. Accumulations can increase soil moisture and lower soil temperatures, making it easier for shrubs and trees to get started and grow. After a fire in such areas, soil temperatures are higher and soil moisture lower, making it more difficult for woody species to become established or survive.

In contrast, most of the upland areas of the park are simply too dry for woody species to ever dominate. The primary effect of fire in these dry upland areas is to slow grass production for several years. While grass production is less, forage quality is often higher after a fire. Grazers will often seek out burned areas in subsequent growing seasons.

Fire may play a more subtle ecological role than is currently understood in a mixed-grass ecosystem. At present, we know that prescribed burns can contribute to park management by:

- reducing thatch and shrub cover in valley grasslands;
- enhancing seed production for the wild harvest of native seed (see section 3.4);
- managing exotic plant species (see section 3.4);
- influencing the distribution of grazers to achieve a particular grazing prescription.

Using fire as a management tool requires considerable expertise. There is also tremendous concern on the part of the park's neighbours that using fire in the park may threaten property and livelihoods.

Consequently, there is no targeted range for the use of fire. Instead the park's use of prescribed fires will be limited in size until the required experience and stakeholder confidence develop. The intent is to learn more about how to use fire to reach specific objectives.

In contrast to prescribed burns, uncontrolled wildfires pose a threat to human life, livestock, natural and cultural resources, and property. Grasslands National Park's policy is that all wildfires will be suppressed according to the current standards and procedures for grassland wildfire suppression.

An interim fire management plan exists for the park, and cooperative fire fighting agreements have been signed with the four local rural municipalities in which the park owns property.

Parks Canada is committed to working with our neighbours to ensure that there is the capability in the region to protect human life and property from wildfire.

Box 3.4 - Fire and Grazing

Grasslands are constantly changing. Natural disturbances play a key role in determining many of these changes.

Some disturbances are caused by living organisms, such as prairie dogs or large grazers. Other disturbances, like burning and flooding, are not.

Disturbances work by removing living matter, killing some species, and providing new opportunities for others. In this way, they help determine the variety of living things found on the landscape.

Prairie fires and large animal grazing are important sources of disturbance that have been altered in recent times. No one knows precisely how fire and grazing operated in the pre-European grassland landscape; however, it is known that they occurred and at times were quite extensive. They likely had an important influence on grassland productivity and biodiversity.

Even if Parks Canada had perfect knowledge of pre-European prairie fire and bison grazing, it is doubtful that it would be possible to faithfully restore these processes within the limited geographic area of Grasslands National Park. In addition, because exotic plant species are now present that could potentially be spread by injudicious use of fire or large herbivore grazing, restoration activities will need to be carefully managed and monitored.

STRATEGIC GOALS

- To ensure that Grasslands National Park, in cooperation with municipal, provincial and local federal authorities, is capable of safely controlling wildfires.
- To use prescribed fire to accomplish specific ecosystem management objectives.

KEY ACTIONS

1) Continue to suppress all wildfires.
2) Develop a fire management plan and continue training and outreach instruction on prairie fire suppression techniques and technology, in cooperation with local authorities and partners.
3) Work to develop the expertise necessary to safely implement a prescribed fire program on an experimental scale until there is sufficient expertise, knowledge, and public confidence to expand the scope of the program.
4) Use prescribed fire where necessary, to achieve vegetation management objectives such as: enhancing native seed production, controlling exotic plant species, reducing thatch and shrubs in valley grasslands, and influencing the distribution of grazers.
5) Study wildfire burns as opportunities present themselves, to increase our understanding of the ecological effects of prairie fires.

3.4 Managing Revegetation of the Grasslands

This section outlines a course of management to facilitate the revegetation of disturbed areas of Grasslands National Park with native species, as part of ecosystem restoration.

Some areas in the park are still cultivated for cereal crops as an interim measure until they can be revegetated. Other fields are dominated by exotic (non-native) species that block or prolong the path of natural succession to native prairie. Native species will not become reestablished in these areas without a revegetation program.

Currently, 522 ha are still under cultivation in Grasslands National Park. If all cultivation in the park stopped without any revegetation of native species, fields would be exposed to the risks of erosion and invasion by exotic species for many decades.

3.4.1 Revegetation with Native Species

There are large fields in the park where cereal cropping was discontinued for more than 10 years and native species have not been seeded. Research and monitoring show that native grasses are slow to reestablish in these fields, but will readily germinate and grow when seeded.

To take advantage of this finding, formerly cultivated areas will be revegetated with native grasses and forbs. First priority will be given to fields currently leased for cereal crop production.

Appropriate seed sources include:

- wild harvested seed from within the park, or from climatically similar areas;
- wild harvested seed multiplied by volunteer or contracted growers;
- genetically-diverse native varieties (ecovars).

3.4.2 Facilitating Succession to Native Prairie

Some fields are dominated by unwanted exotic forage species, such as crested wheat grass and smooth brome grass. Many of these fields also support important native plant species.

The objective in these areas is to stimulate succession to native prairie. Several options are being investigated, including:

- selectively targeting exotics with herbicides, grazing, or mowing to reduce the amount of seed produced;
- burning to remove thatch and reduce undesirable species;
- introducing native species to compete with the exotics.

It is likely that some combination of these techniques will be successful in reducing the dominance of the most abundant exotic forage species, crested wheat grass. Other exotic species, such as smooth brome grass, are currently considered resistant to revegetation efforts and may be the subject of future research.

Crested wheat grass is common along abandoned trails and roadsides throughout the park, allowing the species more opportunities to invade intact native prairie. In these cases, crested wheat grass will be controlled by mowing and by applying herbicides.

Several exotic species not currently found in the park could invade it and alter native plant communities. Examples include spotted knapweed, leafy spurge, and downy brome. If these species should appear in Grasslands National Park, immediate and aggressive action will be required to eliminate them.

STRATEGIC GOALS

- To manage cultivated lands and areas dominated by exotic grasses to ensure that natural succession will restore them to native vegetation over time.
- To sustain succession toward native plant communities on land dominated by exotic plant species.

KEY ACTIONS

1) Phase out farming leases as cultivated land is revegetated with appropriate mixes of genetically diverse native species.
2) Monitor previously abandoned fields for range condition and health. Fields that are declining in quality from erosion or invasion by exotic perennials should be scheduled for revegetation.
3) Develop and apply cost-effective methodologies to reduce the production of crested wheat grass and smooth brome grass seed, and to promote the competitiveness of native species in abandoned fields and road/trail sides.

3.5 Managing Species at Risk

Several species in Grasslands National Park are listed as species at risk of extinction by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (Table 3.3). Grasslands National Park has a clear mandate in the *Canada National Parks Act* and national park policies to contribute to the conservation and recovery of these species.

The reasons that a species is at risk vary considerably. Some are at risk in Canada because the majority of their geographic distribution is outside of Canada, or because they have very restricted habitat requirements. Others have had their populations reduced because of over-hunting or habitat loss, either now or in the past. Accordingly, appropriate management actions also vary. For many species, no management intervention is warranted except to ensure that land use on critical habitats does not change. Other species may require specific management actions, such as protection from hunting, reintroduction or habitat restoration.

Grasslands National Park is insufficient in size to ensure the long-term conservation and recovery of the COSEWIC listed species living within its boundaries. Consequently, the park's conservation efforts need to be integrated with the activities conducted outside the park by other agencies, non-government organizations, landowners, and political jurisdictions. To this end, Grasslands National Park participates on national recovery teams and international working groups and contributes resources for reintroductions, population censuses, and research.

Table 3.3 Species at Risk in Grasslands National Park of Canada

Endangered

- Mountain Plover *(Charadrius montanus)*
- Sage Thrasher *(Oreoscoptes montanus)*
- Burrowing Owl *(Speotyto cunicularia)*
- Sage Grouse *(Centrocerus urophasianus urophasianus)*
- Swift Fox *(Vulpes velox)*

Threatened

- Loggerhead Shrike (*Lanius ludovicianus excubitorides*)
- Sprague's Pipit (*Anthus spragueii*)

Species of Special Concern

- Black-tailed Prairie Dog *(Cynomys ludovicianus)*
- Short-eared Owl *(Asio flammeus)*
- Eastern Short-horned Lizard *(Phrynosoma douglassii brevirostre)*
- Eastern Yellow-bellied Racer *(Coluber constrictor flaviventris)*
- Long-billed Curlew *(Numenius americanus)*
- Ferruginous Hawk *(Buteo regalis)*
- Northern Leopard Frog *(Rana pipiens)*

The types of park management actions for species at risk will not change significantly in the future; however, the level of activity will increase. For example, management plan implementation of ecosystem management actions such as the restoration of a large herbivore grazing regime in the park will include an assessment of grazing effects on the habitat of selected species at risk.

Also, Grasslands National Park was identified as a species at risk program focus area by Parks Canada because of the large number of species at risk living in the park. Already new staff and financial resources have been made available. There are also exciting new opportunities to work with non-government land managers around the park. The *Accord for the Protection of Species at Risk*, signed by the federal and Saskatchewan governments, emphasizes working cooperatively with private land managers to achieve conservation goals. It also provides project funding through the Species at Risk Habitat Stewardship Program.

STRATEGIC GOALS

- To gain a better understanding of the ecology, demography and management requirements of species at risk.
- To maintain or enhance regionally, population levels and habitat requirements of native mixed-grass prairie species, with emphasis on species at risk.

KEY ACTIONS

1) Continue to collect population monitoring data for species at risk in the park and in the region.
2) Participate in the species at risk recovery planning and plan implementation process.
3) Develop an ecosystem-based, multi-species action strategy for the conservation and recovery of species at risk within Grassland National Park.
4) Structure the implementation of park management actions, such as the development of a large herbivore grazing regime, to provide research opportunities for determining the effects of land management on species at risk.
5) Cooperate with non-government organizations, other government agencies, and private land managers to develop a species at risk habitat stewardship program for the region around Grasslands National Park.

3.6 Managing the Reintroduction of Wildlife Species

This section outlines a course of management to reintroduce some species of wildlife that were once found in the park area. For a species to be a suitable candidate for reintroduction it must first be determined whether:

- the species occurred in the area of the park during historic times;
- it became extirpated because of human activity;
- suitable habitat exists;
- a self-sustaining population can be achieved.

Wolves, grizzly bears, greater prairie-chickens, swift foxes, black-footed ferrets, and bison are all species that historically occurred within and around the proposed boundaries of Grasslands National Park. They were extirpated from the area by the activities of humans. The park provides an opportunity to reintroduce some of these species. Although they disappeared because of human activities, the specific causes of their disappearance vary. Similarly, their suitability as candidates for reintroduction also vary.

Wolves and Grizzlies: Wolves and grizzly bears were killed by hunters and trappers. The animals were perceived by some people as being incompatible with modern ranching and farming. This situation remains largely unchanged. Furthermore, the park is not large enough to sustain populations of wolves and grizzly bears on its own. These species are not considered good candidates for reintroduction.

Greater Prairie-Chicken: The greater prairie-chicken is thought to have expanded into Saskatchewan in the early 1900s in response to habitat changes caused by the removal of bison and the control of wildfires. They were considered extirpated in 1990, after a steady decline over 20 to 30 years.

The Greater Prairie-Chicken Recovery Team concluded that land-use changes, combined with intensified agriculture, were the main reasons for the decline. These factors remain unchanged. Any habitats that might remain are fully occupied by sharp-tailed grouse and it is believed that they would competitively exclude an introduced population of greater prairie-chickens. Consequently, the greater prairie-chicken is not a good candidate for reintroduction in the park at this time.

Swift Fox: The swift fox is a stronger candidate for reintroduction. Swift foxes were extirpated because they were vulnerable to traps and poison set out for species such as wolves and coyotes. Appropriate habitat for them is thought to exist in the park.

Since 1990, there has been an active reintroduction program in the park, coordinated by the Canadian Swift Fox Recovery Team. In 1996-97, an estimated 50 to 100 foxes lived in Grasslands National Park and the surrounding region, with some 80% of the animals born in the wild.

Black-footed Ferrets: Black-footed ferrets were also incidental casualties of trapping and poisoning. Appropriate habitat for ferrets depends on healthy populations of prairie dogs and ground squirrels, their primary source of prey. The viability of reintroducing ferrets is uncertain at this time. There are two reintroduction areas in Montana on large black-tailed prairie dog complexes that fall within 200-300 km of Grasslands National Park. Experience in these areas is expected to yield useful information.

Bison: Symbolic of the mixed-grass prairie, bison present an interesting reintroduction challenge. It is not possible to recreate immense herds of bison and allow them to freely roam North America as they did before European colonization. The park has neither the room, nor the top level carnivores to help control population size.

However, the park can in part represent how bison used the mixed-grass prairie, including wallowing, rutting on prairie dog colonies, and grazing on large contiguous blocks of prairie. Bison can also provide the grazing disturbance necessary to achieve vegetation management objectives that are part of restoring the ecological integrity of the park.

Several challenges must be addressed in reintroducing bison. These include logistical hurdles such as meeting the applicable federal and provincial disease testing requirements, infrastructure requirements such as fencing, and population management. Also, the reintroduction will have to be managed so as not to negatively impact other species in the area. For example, the perimeter fence to contain the bison will have to be designed so as not to restrict antelope movement. A suitable location must also be chosen for a bison herd.

Placing and managing a herd will be addressed in the grazing management plan, which will also outline how bison will be used to support vegetation management objectives. The bison reintroduction plan will address other logistical hurdles. Both the grazing management plan and the bison reintroduction plan will be developed cooperatively, in consultation with stakeholders and the public.

STRATEGIC GOALS

- To reintroduce bison to areas of the park where they can practically be used to contribute to achieving the grazing prescription.
- To reintroduce other native mixed-grass prairie wildlife species eliminated by humans where appropriate habitat is available and self-sustaining populations can be achieved.

KEY ACTIONS

1) Develop and begin implementing a bison reintroduction plan.
2) Continue to work with and support the Swift Fox Recovery Team in its effort to reintroduce swift fox to Canada.
3) Assess the feasibility of reintroducing the black-footed ferret based on the results of the American reintroduction program and prairie dog research in Grasslands National Park.

3.7 Managing Aquatic Resources

Most of the streams in Grasslands National Park are small and only flow seasonally. All, or at least portions of their watersheds occur within park boundaries. The major exception to this is the Frenchman River which has its source in the Cypress Hills. Because of its relatively large watershed and its importance as a water source for agriculture and human settlements, the Frenchman River has been more affected by human activity.

Prior to flow regulation, the Frenchman River was flooded by spring snow melt and unusual precipitation events. High water flows and sediment loads have built a meandering channel, with levees and oxbow lakes.

In 1937, the Prairie Farm Rehabilitation Administration (PFRA) built two large dams with reservoirs upstream of Val Marie. Since then, water flows along the Frenchman River have been regulated to provide water for irrigation. In addition, commitments under the Boundary Waters Treaty (1909) require that 50% of the stored water must cross the United States/Canada border annually. Under the terms of the park establishment agreement, designated streams including the Frenchman River and eight other streams are excluded from the park and are under the jurisdiction of the province of Saskatchewan. This decision may be revisited in the future. The excluded watercourses are designated Protected Areas under the Saskatchewan *Provincial Parks Act* to be managed in the spirit of the *Canada National Parks Act*. Jurisdictional issues aside, from a broad ecosystem management perspective, the streams are an integral part of Grasslands National Park and their health directly affects the ecological integrity of the park.

The environmental consequences of flow regulation on the Frenchman River have never been studied. Unfortunately, there is likely very little opportunity to influence the management of flow regulation because the volume of water is already legally and economically committed. However, there are also water quality issues that should interest all users of the river. For example, the environmental effects of agrochemicals and human and cattle faeces have yet to be assessed.

In addition to flowing water, Grasslands National Park contains many intermittent water bodies. Many of these are artificial dugouts and small dams. The policy of the park has been to leave these structures in place since they are used by many wildlife species. The dams wash out from time to time and to date the park has not repaired them.

STRATEGIC GOAL

- To build a greater understanding of the effects of human activity on the ecological integrity of the Frenchman River.

KEY ACTIONS

1) Assess Frenchman River water quality (and other streams as needed), and determine their state of ecosystem health.
2) Continue allowing earth dams to wash out naturally unless the water is required for a specific park operational purpose.
3) Facilitate the development of multi-partnership stewardship projects to improve the riparian health and water quality of the Frenchman River system.

3.8 Managing Recent Cultural Resources

Ranch and farm buildings, which are often found on land that Parks Canada acquires, may have some historic values. They may also be useful to park operations or, in contrast, present health and safety hazards. However, it is generally recognized that the buildings and other physical structures from the *modern* ranching and farming era do not have sufficient historical value to warrant their preservation and will be removed unless they contribute to the operation of the park. If an outside group has a special interest in the historic values of a particular building, Parks Canada would be willing to discuss options such as removal and restoration, on-site restoration and maintenance, and opportunities for presentation.

STRATEGIC GOAL

- To develop a sufficient understanding of the value of the park's recent cultural resources to enable informed decisions on the need to protect and present them.

KEY ACTIONS

1) Continue to prepare inventories and historic profiles of cultural resources, as land is acquired.
2) Identify basic criteria, consistent with the themes of Grasslands National Park, that establish historic value for farm and ranch sites in the park.
3) Based on the inventories and profiles, have a cultural resource management specialist prepare a set of historic values for each resource. A wide range of people and perspectives should be used in determining values.
4) Evaluate each extant structure that is more than 40 years old for architectural significance, according to the complete inventory, and evaluate extant

structures within the park according to the Federal Heritage Building Review Office guidelines.

5) Make subsequent decisions on the future of each resource with reference to its historic values. Options may include: letting the resource decay naturally, conserving the resource for interpretation, protecting it as a cultural resource, adapting it for use in park operations, or dismantling and removing it.
6) Ensure that important values are included in heritage presentation programs.

3.9 Managing Aboriginal Sites and Features

There are some sites and features in the park that may be considered sacred by some Aboriginal people who may want to take part in the management of these sites. Based on a preliminary assessment, the following types of features have been identified as likely to have spiritual significance:

- medicine wheels (9);
- vision quests (18);
- ceremonial rings (16);
- burials (2);
- cobble effigies (6).

STRATEGIC GOAL

- To determine with Aboriginal peoples the role they would like to play in identifying and managing sacred sites and features.

KEY ACTIONS

1) Consult with Aboriginal people to confirm sacred values and to develop appropriate management strategies, including presentation strategies.
2) Manage the sites and features in accordance with agreements that may result. Agreements could include special access rights for Aboriginal people or limited access by others. They may also provide for specific ceremonies or research.
3) Continue to acquire data to describe the resources in detail and to identify the sacred values associated with specific features, artifacts, or sites.

3.10 Managing Threatened Cultural Sites

Some cultural sites are threatened by natural processes such as erosion. If there is reason to believe a site will sustain major losses or complete destruction within a 10-year period, the site can be placed on the Threatened Sites list.

Currently four threatened sites and eight sites considered vulnerable are being monitored in Grasslands. An additional 24 sites are identified as priority sites for evaluation of threats.

STRATEGIC GOAL

- To ensure that appropriate management actions are put in place to protect threatened and candidate cultural sites.

KEY ACTIONS

1) Develop an action plan for resources currently on the Threatened Sites list. Actions may include salvaging, recording, monitoring, or stabilizing the resources.
2) Continue to evaluate sites considered vulnerable to damage, for inclusion on the Threatened Sites list.

Box 3.5 - Cultural Resource Management

A cultural resource is a human work, or a place that gives evidence of human activity or has spiritual or cultural meaning, and that has been determined to be of historic value.

Parks Canada applies the term to a wide range of resources in its custody, including cultural landscapes and landscape features, archaeological sites, structures, engineering works, artifacts, and associated records. Parks Canada is committed to the protection and preservation of cultural resources, both archaeological and historic, in national parks.

To be a cultural resource worthy of protection and presentation to the public, an object, feature, landscape, or building must have historic value.

Historic Value

Historic value is determined by a variety of people, including specialists, park staff, and key stakeholders. It is derived from understanding and respecting the resource from many viewpoints and sources of information, including historical documentation, local tradition, scientific analysis, physical characteristics, and public benefit.

Factors in determining historic value might include physical traits such as architecture, age, or location. Factors might also include symbols, or association with something else of value, such as a personality, an event, or a geographic feature, such as a bison jump. In such cases, natural qualities are part of what should be protected.

When determining whether a cultural resource has historic value it must be assessed both as an individual resource and as part of a group of related resources.

A garbage dump, for example, may not be valued in its own right, but may be an integral component of an abandoned farmstead of historic value, making the garbage dump a "cultural resource".

The historic value of some landscape features generally associated with ranching and farming lies in their location. Examples include cultivated fields, planted forage crops, and fence lines. To protect that value, the locations of cultivated fields, forage crops, and fence lines will be recorded before they are removed/replaced as part of the objective of ecological restoration.

3.11 Managing Cultural Sites in High Use Areas

Trails and interpretive kiosks/signs sometimes focus visitor use in areas with concentrations of cultural resources. Examples include the Two Trees Trail, 70 Mile Butte, the Larson farmstead, and obvious scenic viewpoints.

Given the high density of cultural sites in the park, their visibility, and their value to the visitor experience, sites in high use areas require special management to ensure that they are protected while being presented to visitors.

STRATEGIC GOAL

- To ensure the protection and ongoing presentation of cultural resources in high use areas by determining the resource's vulnerability and providing special management.

KEY ACTION

1) Create a plan for high use areas that specifies site planning, research, monitoring, presentation approaches and intervening measures that will prevent and mitigate damage to cultural features.

3.12 Managing Paleontological Resources

The geological and paleontological histories of the area are significant features of Grasslands National Park. In the Killdeer Badlands Sir George Dawson made the first undisputed collection of dinosaur remains in Canada in 1874. Many paleontological expeditions by Canadian and other scientists have taken place. Currently, at least 19 species of fossil vertebrates have been collected from the strata of the Frenchman Formation exposed along Rock Creek, including one of the most complete Triceratops skeletons. Other complete skeletons have emerged from the Frenchman River valley. The badlands are also the Canadian reference section for ongoing studies worldwide to determine the cause(s) of the extinction of dinosaurs.

The paleontological resources within the park have yet to be inventoried or assessed. Requirements for protection, management, and presentation have not yet been identified.

Parks Canada has little paleontological expertise and a partnership agreement with a museum or university will be required.

STRATEGIC GOAL

- To ensure the protection and presentation of paleontological resources.

KEY ACTIONS

1) Conduct a surficial inventory of paleontological resources.
2) Develop a relationship with an organization having expertise in paleontology to assist in the identification, valuation, conservation, and presentation of paleo-resources.
3) Develop a fossil protection and presentation plan.

4. Heritage Presentation and Visitor Management

Subsection 8(2) of the *Canada National Parks Act* states:

> *The national parks of Canada are hereby dedicated to the people of Canada for their benefit, education and enjoyment, subject to this Act and the regulations, and the parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations.*

Parks Canada's *Guiding Principles and Operating Policies* state that "the long term success of efforts to commemorate, protect and present Canada's natural and cultural heritage depends on the ability of all Canadians to understand and appreciate this heritage, and to personally adopt practices which are sensitive to heritage and the environment. This is encouraged through a variety of communication, interpretation and outreach programs, and demonstrated leadership at the local, national and international levels."

Presenting national parks to the people of Canada, in ways that maintain ecological integrity and cultural resources, is an important part of the Parks Canada mandate. This section explains how Parks Canada will work toward this mandate, by presenting park messages and providing visitor services, while ensuring protection of the natural and cultural resources that characterize Grasslands National Park.

4.1 Themes and Messages

Heritage presentation programming and visitor services will focus on themes which articulate the core values that are represented in Grasslands National Park. Key themes and messages focus on:

- the park's identity as part of the national park system;
- the role that the park plays in maintaining ecological integrity, and protecting the mixed-grass ecosystem and its species at risk;
- the human history of the park.

4.1.1 Theme: The Canadian Protected Heritage Area System

This theme emphasizes the national system of protected heritage areas, focusing on national parks and historic sites. The objective of representation of natural regions will be emphasized, as will the objective of commemoration of nationally significant places and events. Grasslands National Park's role as a protected heritage area representing one of these natural regions will be highlighted.

Box 4.1 - Ecological Integrity is Everyone's Business

Park presentation and visitor management will recognize the preservation of ecological integrity as the primary goal for the national park system generally, and for Grasslands National Park specifically. Ecological integrity concepts will form the backbone for all park messages, will strive to build support and foster understanding of this goal, and encourage stewardship.

This plan illustrates actions where visitor management and presentation efforts will support the maintenance or restoration of ecological integrity.

- All-weather roads will be limited to the Eco-tour road in the West Block, and the McGowan access road in the East Block. Other roads in the East Block will be decommissioned when they are no longer needed for local access (see sections 4.9.1 and 6.7).
- Camping facilities will be located on previously disturbed areas where possible. Multi-site facilities will be limited to one per block, with a maximum of ten sites per facility. Facilities will be minimally serviced (see section 4.9.2).
- Unobtrusive kiosks will be placed at selected visitor entrances at the park boundary, and at camp/day-use sites only (see section 4.9.3).
- Dispersed hiking without the use of trail markers will be encouraged. Marked hiking trails will be limited to one per block, and will use the most unobtrusive markers possible (see section 4.9.5).
- Messages of maintaining of ecological integrity will be incorporated into the five presentation themes (see section 4.1).
- Parks Canada will strive to build awareness in the tourism industry and with tourism partners of the unique role of Grasslands National Park, and the primacy of maintaining or restoring ecological integrity (see section 4.6.5).

Messages:

- The park represents the Prairie Grasslands Natural Region of Canada. It is the only national park that does so.
- National parks and national historic sites comprise a national system of protected heritage areas. The goals are to protect representations of each of Canada's natural regions, and to commemorate and present nationally significant places, people and events.
- Protecting the mixed-grass prairie ecosystem for its intrinsic value in a national system of protected areas is important to Canadian identity. Grasslands National Park provides an opportunity for present and future generations to enjoy and appreciate a representative portion of this ecosystem. Public awareness and understanding of the mixed-grass prairie ecosystem can inspire the Canadian public to protect their natural heritage and what remains of this once extensive ecosystem.

- The Canadian protected heritage area system plays an important role in global environmental protection and is an important element of Canada's participation in global strategies.
- Special emphasis is placed on meeting protected area goals by working with adjacent land managers, regional interests and other agencies.

Learning Outcome

- Audiences know that Grasslands National Park is part of a larger Canadian system of protected heritage areas.

4.1.2 Theme: The Mixed-Grass Prairie Ecosystem

This theme emphasizes the biological, human and physical features of the mixed-grass prairie ecosystem. It will feature the park's assemblage of plants and animals and their special adaptations to illustrate the character of this ecosystem, and its importance in sustaining life on this planet.

The primary management objective of maintaining ecological integrity of this ecosystem will be communicated, as well as park management issues in general terms. The fact that much of the mixed-grass prairie ecosystem has been altered will also be presented. This theme also presents the concept of humans as a part of the ecosystem. While this idea is integral to describing the mixed-grass prairie ecosystem, it is more thoroughly detailed in the subsequent Human-Land Relationships theme, to enable more effective communication and learning.

Messages:

- A "pristine prairie" landscape including all of the natural elements and relationships, unaffected by modern day human presence, cannot be replicated. However, a primary objective for conserving Grasslands National Park is to complement the broader ecosystem. This will be achieved by representing within the park, aspects of natural processes such as grazing that are under represented in rangelands managed for livestock production outside the park. For example, intense, infrequent, short duration grazing, will be one aspect emphasized in the park. This type of grazing, when combined with the conventional grazing regime outside the park, will result in increased overall biodiversity in the broader ecosystem.
- Humans are part of the ecosystem, and have been for thousands of years. Different cultural groups used the land and resources in different ways (see section 4.1.4).
- Park management will work to maintain or restore ecological integrity.
- Unique combinations of landscape and climate create niches for specifically adapted plants, animals and endangered species.
- Water is one of the primary shapers of prairie ecosystems. Low precipitation in this area influences many of the conditions that create prairies. Waterways such as the Frenchman River and Rock Creek add significantly to biodiversity and are important habitats.
- Management of the mixed-grass prairie ecosystem for native biodiversity, ecological integrity and protection of cultural resources is difficult. Involvement of the many people and land managers through the region is critical.

- The prairie grasslands are productive, and important economic values are derived from them.
- The prairie grasslands are poorly represented in formal protected area systems globally. Grasslands National Park is therefore an important part of national and international protection strategies for this ecological region.

Learning Outcomes

- Audiences know that Grasslands National Park represents the Prairie Grasslands Natural Region in the protected system. The prairie grasslands region is a large and special ecosystem in North America.
- Audiences understand what is special about the mixed-grass prairie ecosystem and why it is important to protect.
- Audiences know that the park cannot survive on its own - it is a part of a broader ecosystem, and needs the support of adjacent neighbours and jurisdictions.

4.1.3 Theme: Endangered Spaces and Species

As part of regional, national and international efforts in prairie conservation, Grasslands National Park has a major role to play in promoting habitat restoration and species preservation.

Messages:

- Several species listed as endangered, threatened or species of special concern by COSEWIC (Committee on the Status of Endangered Wildlife in Canada) inhabit the Prairie Grasslands Natural Region of Canada.
- Grasslands National Park's combination of landscape and climate provide important habitats for many rare and endangered species. Grasslands National Park alone cannot provide these species and others with the space and protection they need.
- Many species are at the northern extent of their range.
- The park plans, invests in and builds partnerships to protect and recover species at risk.

Learning Outcomes

- Audiences know that Grasslands National Park provides habitat for many species at risk.
- Audiences know that Parks Canada helps rescue species at risk by protecting habitat and through active management.

4.1.4 Theme: Human—Land Relationships

The evidence of human activity on the park landscape is widespread, spanning a period of time from precontact bison hunting thousands of years ago to the present. These relationships provide illustrations of the ways in which people and the prairies have interacted, one influencing the other.

Messages:

- Evidence of habitation, both successful and unsuccessful, illustrates the ways people and the prairies have interacted and influenced one another.
- The different people who inhabited or travelled through this area lived in many different ways. Examples of adaptive strategies to living and working in this semi-arid region include those of Aboriginal peoples, explorers, boundary surveyors, fur traders, Métis, North-West Mounted Police, early ranchers, settlers, modern ranchers and farmers. Some examples include:
  - 10,000 years of living in this area by the first peoples;
  - the use of bison as a source of life for the first peoples, starting several thousand years ago, through to the Aboriginal hunters in the mid 1800s;
  - the use of medicinal and edible plants by the first peoples;
  - the struggle of the first ranchers and farmers in the area.
- Over time, humans have increased their effects on the land and its resources.
- Grasslands National Park has one of the largest samples of undisturbed precontact cultural resources in Canada. The sites represent many time periods, communities and activities.
- There are also good representations of the history of ranching and of homesteading in the Palliser Triangle. The features these different groups left behind are valuable symbols of the cultures that have shaped this area, and their activities.
- The international boundary can serve as a focus for many relevant facts and stories, such as:
  - illustrating the difference between Canada and the United States, such as land use;
  - the history of the International Boundary Commission;
  - the sanctuary that Sitting Bull and other Dakota sought in Canada after conflict with American troops.

Learning Outcome

- Audiences know that the prairie ecosystem has been home to many peoples over many thousands of years, each of whom used the land differently.

4.1.5 Theme: Geological and Paleontological History

The geologic history of Grasslands National Park illustrates the formation of this exceptionally striking landscape. Exposure of hundreds of feet of sedimentary rock has opened a window to the brief interval of geologic time representing the extinction of the dinosaurs. Major stages of the earth's evolutionary history are exceptionally well illustrated.

Messages:

- The region's vast array of badlands embodies the youngest dinosaur bearing sediments (Frenchman Formation, 65 million years) and Cretaceous-Tertiary boundary sedimentary layer in the East Block as well as an extensive area of marine sediments (Bearpaw Formation, 68 - 71 million years) in the West Block.

- The fossils and paleogeography of Grasslands National Park are significant in contributing information to understanding the events prior to the extinction of dinosaurs at the end of the Cretaceous period.
- The resulting landscape has provided niches for particular plants and animals.
- The paleogeography of the park is a natural monument to the growth of paleontological sciences on earth, and a landmark of great significance in the development of life on earth.

Learning Outcomes

- Audiences have learned about the geological and paleontological significance of the park.
- Audiences have learned about and experienced the vistas and wide open spaces of the prairies.

4.2 Target Markets—Who Are They?

The park's outstanding natural and cultural features, their location in the regional context, and the potential they offer for opportunities to understand, appreciate, and enjoy these heritage resources, all combine to determine the target markets or types of visitors who would be attracted to Grasslands National Park. This focus on target markets that are drawn to the park's unique resources assists in the maintenance of ecological integrity by emphasizing the wilderness environment that exists as the attraction, rather than altering the ecosystem to focus on the demands of other, non-target audiences.

The identification and clustering of park visitors into groups, and understanding their needs and expectations, enables Parks Canada to provide high quality visitor experiences in the park, while fostering a sense of national pride and identity.

More than Advertising

Marketing is more than advertising or promotion. It is how the park manages its relations with visitors, stakeholders, and the Canadian public in support of Parks Canada's mandate. It includes determining the types and delivery of services that are to be made available, and the messages that the park will communicate.

A park with Grasslands National Park's unique features, and limited financial and human resources, is not able to offer a broad number of experiences. But it can offer those experiences that foster an understanding and appreciation of the Prairie Grasslands Natural Region and the park's cultural resources to the people who seek those experiences - the target markets.

This is the essence of target marketing - matching the park's unique attributes with those groups or individuals most likely to appreciate them and have a positive Grasslands National Park experience. As previously stated, this ensures that undue stress is not placed on those attributes, by carefully matching expectations with the park's unique features.

The Target Markets

Four market segments have been identified as target markets for Grasslands National Park. They are largely based on the Canadian Tourism Commission's criteria for market segments:

Knowledge and Variety Seekers: These are predominantly younger people and married couples. They prefer a busy itinerary with lots of opportunities to have fun and enjoy a variety of sights and activities. The most attractive opportunities allow them to broaden their knowledge, while offering exceptional value.

Nature Buffs: These are mainly younger people to middle-aged couples motivated by opportunities to see wildlife, birds, and flowers and to obtain high quality information. National and provincial parks are particularly attractive destinations.

Casual Users: Often local residents or stopover travellers, but may include any visitor from outside the other target markets. Casual users prefer clearly defined and structured visits such as guided tours, park orientation, and contact with park staff. They would see Grasslands National Park as a nationally and internationally significant park that represents excellent value for time and money and is a recreational opportunity for friends and relatives who are visiting.

For these people, Grasslands National Park should be positioned as the best place to see and learn about local heritage in a half-day activity.

Outreach Audiences: These are people who may learn about the park, and appreciate it, but are more effectively reached off site, such as in schools. This target market includes "vicarious" users of the park; they are unlikely to visit the park, but can learn and appreciate from a distance.

Stakeholders: While this is not a target market *per se*, Grasslands National Park has a number of stakeholders that provide support and services to the park, and have an interest in park management. This target market includes adjacent landowners, rural residents, town residents, regional businesses, conservation organizations and similar non-profit groups, government agencies, and others. For these people, regular and timely communication is necessary to maintain support and improve dialogue for park management.

4.3 Visit/Use Types - What Do the Target Markets Prefer?

Grasslands National Park will develop facilities and services to enhance use of the park by the four target markets.

To focus efforts, the park has identified a series of visit/use types. These are arrays of park experiences that the four target markets typically prefer.

These experiences will be developed to satisfy the needs and expectations of the specific target markets in ways that are consistent with the mandate. Developing these visit/use types with an understanding of each target market will help the park to ensure a positive Grasslands National Park experience for its clients.

The Preferences of the Target Markets

Four arrays of park experiences sought by the four target markets have been identified for Grasslands National Park:

Discovery and Learning: Visitors with these preferences want to learn about the park's themes. They have high expectations of their visit, and benefit from high quality information and contact with knowledgeable staff.

Their visits often include wildlife watching, photography, attending interpretive events (including formal school groups), camping, and backcountry hiking.

Adventure and Recreation: Visitors with these preferences seek more challenging forms of recreation than the others. They want to experience the natural environment on its own terms with a minimum of facilities.

Important elements of the visit are opportunities for adventure, personal challenge, risk, accomplishment, and solitude in as natural a setting as possible. Hiking, mountain biking and wilderness camping are popular activities.

Adventure and recreation seekers may also enjoy:

- prepackaged western cowboy experiences provided in the park by outfitters;
- cultural experiences organized by Aboriginal people;
- organized group visits such as 4-H and university study groups.

Casual Visits: These appeal to visitors with a few hours (or a few days) to relax and view prairie landscapes, but for whom Grasslands National Park may not be the reason for travelling.

Those on casual visits prefer clearly defined and structured visits such as guided tours, park orientation, and contact with park staff.

They engage in a wide range of activities such as driving through the park, picnicking, camping, shopping for souvenirs, sightseeing, and visiting the visitor reception centre. Cars and recreational vehicles are important modes of transportation.

Vicarious Appreciation: These people derive satisfaction from learning about the park and Canada's system of national parks—at a distance. Outreach programs are the primary means of reaching these users.

4.4 Heritage Presentation Methods

The following are the methods that will be employed to enhance the quality of experience for the park's target audiences.

On-site Staff Contact: Grasslands National Park will focus its presentation of the various park messages by creating quality, personal experience opportunities for the visitor, largely through personal interaction with park staff. This will be the primary means of heritage presentation, and is particularly suited to the needs of the park's primary target markets, the *Knowledge and Variety Seekers* and the *Nature Buffs* (see section 4.2). Some of the methods that will be used include:

- daily guided hikes;
- special events;
- educational and group tours;
- special outdoor programs;
- learning travel products.

Non-personal Media and Facilities: Grasslands National Park will also focus its presentation of the various park messages by providing sufficient, quality non-personal media and facilities to enhance the visitors' personal experience in the park. This will be the second major means of heritage presentation. Non-personal media and facilities provide a tool whereby visitors can appreciate, understand and enjoy the park on their own terms. This method is suitable for all four target markets, but is particularly useful for *Casual Users*. Some of the methods that will be used include:

- park field guides;
- information kiosks at park entrances;
- audio tape tours;
- day-use sites and rest areas;
- unmarked hiking routes and marked hiking trails;
- an all-weather vehicle touring route.

Outreach: Grasslands National Park will also focus its presentation of the various park messages by providing outreach experiences for non-visitors to obtain a vicarious appreciation of the park. This will be the third means of heritage presentation. Many Canadians and others may not be able to access the park on a personal basis. However, they desire an opportunity to discover the values of Grasslands National Park. This experience also contributes to building a broad base of support for the park.

Outreach methods are suited to the needs of the park's fourth target market, the *Outreach Audiences*. The focus will be first on outlying communities where the strongest base of support is needed. Outreach efforts will then target urban centres and new Canadians. Some of the ways that the park will provide these experience opportunities are through:

- slide show programs;
- drama presentations;
- display booths at conferences/trade shows/tourism events;
- lecture series;
- non-personal brochures;
- Parks Canada Web site.

Methods Aimed at Stakeholders: Grasslands National Park will also focus its presentation by communicating important park management issues, decisions and appropriate uses to stakeholders. As the "public face" of the park, heritage presentation programs need to build dialogue on important management issues, and on the rationale of management decisions with the public, and in particular, stakeholders. Methods used to communicate this information will vary. They include:

- newspaper editorials;
- media interviews;
- public open houses;
- workshops;
- non-personal brochures;
- display panels.

4.5 Measuring Effectiveness of Heritage Presentation

Parks Canada will measure the effectiveness of heritage presentation efforts, including individual programs and activities, in between management plan reviews.

Several client-based research methods will be used. The overall program will be assessed mainly using a client-based score card, which provides information to understand and improve the success of the program. It assesses performance against fourteen indicators which can be adapted to specific locations. The results are expressed as strengths, weaknesses, opportunities and threats, and lead to an identification of actions.

Individual programs (personal interpretation, publications, websites, edu-kits, audio-visual programs and non-personal media) will be assessed using a variety of tools. They include visitor comment cards, standardized Parks Canada assessment tools, and surveys that assess use, satisfaction and understanding.

4.6 Presentation and Partnerships

Presenting the heritage represented by Canada's national parks is a key part of Parks Canada's mandate and responsibility.

Key messages will be delivered to park visitors so that they may enjoy, appreciate, and understand Grasslands National Park. Key messages will also build on our Canadian identity.

Presentation is also important for heritage protection. Strong public support is necessary to ensure integrity of park and regional ecosystems.

There are five elements to the presentation and partnership program for Grasslands National Park:

- visitor reception;
- interpretation programs;
- community relations and outreach;
- cooperating associations and individuals;
- tourism.

STRATEGIC GOALS

- To ensure that visitors are able to access information that enables them to find, enjoy, and learn about the park in a safe and efficient manner.
- To know the effectiveness of presentation efforts through monitoring and measurement.
- To build constituencies of support and understanding among stakeholders, park neighbours, the research community, volunteers, and tourism partners.
- To build an awareness of Grasslands National Park as a destination, and to encourage visitation to the park and surrounding region.

4.6.1 Visitor Reception

Visitors are already demanding more reception and information services than the staff and facility can provide.

This problem is expected to increase over time, with the anticipated increase in visits as the park matures. Because of the low level of services and the challenges of navigating the patchwork of land holdings, visitor reception plays a particularly important role in Grasslands National Park visitor experience.

The administration building at Val Marie is the major point of reception and source of information for visitors. It plays an important role in conveying a sense of arrival and welcome to Grasslands National Park, and provides in-park orientation and education. Services are provided through staff contact and non-personal media. Visitors to Grasslands National Park consistently identify personal contact as a highlight of their park experience.

Parks Canada does not directly provide information services for visitors who go directly to the East Block. Currently, the Rodeo & Ranch Museum at Wood Mountain Regional Park, near the East Block, provides visitors with basic information on Grasslands National Park. Parks Canada will continue this arrangement. An information kiosk at the entrance to the East Block provides a map of the block, a guest register, and other basic information.

Appropriate reception services are required in both blocks to accommodate the expected increase in visitation. Personal contact between Parks Canada staff and visitors will generally address this need.

STRATEGIC GOALS

- To provide reception services for the public that:
- provide a thorough orientation to the park, including its safety issues;
- describe services and opportunities so that the public is in a position to make well-informed decisions on the experiences they want;
- educate the public about the park (see section 4.6.2).

KEY ACTIONS

1) Assess the feasibility of developing visitor reception including exhibits, audio-visual programs, space for orientation of community attractions, storage, and adequate parking for motor coaches and other vehicles.
2) Determine the appropriate level and type of service delivery that may be contributed by cooperating associations, such as the "Prairie Wind and Silver Sage" —Friends of Grasslands Inc. and the Wood Mountain Historical Society.
3) Improve signage to orient visitors to complementary attractions and services in the park and region.
4) Provide a reference manual and training for staff and partners delivering visitor services/reception for Grasslands National Park.
5) Address visitor services/reception needs in the East Block.
6) Monitor the effectiveness of reception, based on the above goals, and adapt accordingly.
7) Conduct visitor surveys to determine visitor satisfaction and needs.
8) Ensure that staff are able to respond to public demand for additional services.

4.6.2 Interpretation Programs

Interpretation programs and services are a key part of Parks Canada's mandate. They encourage the natural sense of wonder and curiosity that people feel about their cultural and natural environment, leave them with the desire to know more, and inspire them to increase their commitment to care for and protect the environment. Interpretation objectives will focus on educating the public and building the support that is needed to maintain or restore the park's ecological integrity. With an educated and committed public, there is greater likelihood of support for park and ecosystem protection efforts.

STRATEGIC GOAL

- To provide park visitors and outreach audiences with high quality heritage interpretative services, based on the themes outlined, that foster understanding of the park's significant natural and cultural heritage, and its role in Canadian and globally protected areas.

KEY ACTIONS

1) Create a heritage presentation strategy to guide presentation methods.
2) Present programs that are based on Grasslands National Park themes, such as, "The Canadian System of Protected Heritage Areas", "Mixed-Grass Prairie Ecosystem", " Endangered Spaces and Species", "Human - Land Relationships" and "Geological and Paleontological History" (see a complete description of themes and messages earlier in this section). The primary focus of the themes' presentation will be the maintenance or restoration of the park's ecological integrity.
3) Ensure that interpretive opportunities and educational potential are considered during the siting of new campgrounds, hiking trails, and other facilities.
4) Develop appropriate interpretive media and facilities such as panels, a web page, edu-kit, and information kiosks.
5) Work with students, teachers, special interest groups, local school boards, and other academic institutions to develop curriculum-based educational programs.
6) Encourage the use of facilities and the park's natural setting as field extensions for conventional classroom teaching and other forms of education.
7) Develop cultural history programs with appropriate partners, such as Aboriginal people.
8) Target information at through travellers as a means of attracting them to the park.
9) Ensure staff can respond to public demand for interpretive programs.
10) Monitor the effectiveness of presentation efforts based on the learning outcomes detailed earlier in this section, and adapt programs accordingly.

4.6.3 Community Relations and Outreach

Grasslands National Park depends on the cooperation and support of neighbours, partners, key stakeholders, the private and non-profit sector, and others to achieve the park and ecosystem management goals.

The park must work toward developing rewarding relationships in the community with these groups and individuals. It will promote the concept of cultural and natural stewardship and ecological integrity through outreach programs, ongoing dialogue, good community relations and by example.

In addition, the park can help advance the understanding of prairie ecosystems and cultural landscapes by maintaining and building connections with the conservation and research communities. Grasslands National Park should be supported and encouraged as a site for pure and applied research. Participation in the Prairie Conservation Action Plan is an example of a step toward this end.

STRATEGIC GOALS

- To develop and facilitate working relationships in the community that build support for Grasslands National Park and its management, and for the conservation of mixed-grass prairie in the region.
- To develop and facilitate working relationships with the conservation and research communities that advance the understanding of prairie ecosystems and related cultural resources.

KEY ACTIONS

1) Develop outreach programs that build commitment of the parks' neighbours, partners, key stakeholders, and others, to the park's management goals and the conservation goals of the region.
2) Maintain dialogue with the park's neighbours, partners, and stakeholders for a discussion of park and regional issues.
3) Continue consulting with stakeholders through the stakeholder advisory committee (see section 5.4).
4) Report annually on park management programs, progress and issues (see section 5).
5) Communicate regularly with the public with a focus on management activities. Slide show presentations in local communities will be particularly effective.
6) Establish and maintain connections with protected area managers and research professionals of mixed-grass prairie sites in Canada and the United States.
7) Develop partnerships with Aboriginal communities.
8) Monitor the effectiveness of reaching out to communities, based on the above goals, and adapt accordingly.

4.6.4 Cooperating Associations

Grasslands National Park continues to develop partnerships with those who share similar values, such as cooperating associations, conservation groups, and interested individuals. These partners can help Parks Canada achieve its mandate.

by providing valuable additions to services and resource management programs already in place.

"Prairie Wind and Silver Sage" —Friends of Grasslands Inc. is the active park cooperating association. It is a member of the Canadian Parks Partnership (CPP), a nation-wide alliance of non-profit, community based "Friends" groups. Working as partners to Parks Canada, CPP supports and enhances the environmental and heritage protection and education mandate of Canada's national parks and historic sites. Members of CPP are "preferred partners" of Parks Canada.

Cooperating associations may be eligible for support in the form of space for retail outlets in park facilities, administrative support, or other in-kind amenities. Because of the lack of infrastructure in Grasslands National Park, it has not been possible to accommodate the operations of the "Prairie Wind and Silver Sage". Appropriate support is needed.

STRATEGIC GOAL

- To develop and facilitate working relationships with cooperating associations, groups and individuals that support Grasslands National Park and the conservation of the mixed-grass prairie.

KEY ACTIONS

1) Provide support for the "Prairie Wind and Silver Sage" —Friends of Grasslands Inc. cooperating association, recognizing the unique situation of the group.
2) Consult with the "Prairie Wind and Silver Sage" and other partner groups when planning new infrastructure such as a visitor reception centre, to incorporate their needs.
3) Facilitate the efforts of groups, volunteers, and individuals whose actions support park objectives, by assisting with research, program design, and guided tours.
4) Continue to maintain a Parks Canada staff person from Grasslands National Park as a contact for partnerships.
5) Share the goals and management actions of Grasslands National Park with groups and individuals.
6) Develop consistent guidelines for working with these groups and individuals.

4.6.5 Tourism

The tourism industry is a valuable opportunity to promote understanding, appreciation, and respect for the park's heritage through travel experiences provided by the industry. These experiences can be provided in ways that maintain ecological integrity.

Realizing the full tourism potential of the park depends on forming partnerships and alliances with the tourism industry and among private sector operators. Working with the tourist industry has a multiplier effect—the industry in turn markets the park to other users. Cooperation between Parks Canada and the tourism industry will be important.

Private guided services in the park, such as horseback riding, are appropriate within the guidelines set out by the *National Parks Businesses Regulations 1998* and related documents. Operational bases for such services will be located outside the park.

An effective marketing strategy is required to increase the public profile and awareness level of Grasslands National Park. The development of such a strategy was identified in the 1988 park establishment agreement, but has not been completed. Parks Canada should initiate the development and implementation of a marketing and tourism strategy in cooperation with economic development interests in the local area and broader region. Such a strategy needs to reflect the essential role of the park as a protected area. An effective marketing strategy would have a positive effect on the park and surrounding areas as it has the potential to make the park and region a destination point for vacationers and travellers.

As part of the park's commitment to the maintenance of ecological integrity, the park will only be marketed to market groups previously identified. Marketing efforts will help to ensure that the right number of visitors come at the right time with the right expectations.

STRATEGIC GOALS

- To access the target markets identified for Grasslands National Park, and help make sure the target markets have an understanding of the opportunities for experiencing Grasslands National Park.
- To develop and maintain viable partnerships with the private sector tourism industry.

KEY ACTIONS

1) Prepare a park marketing strategy which includes tourism initiatives that complement the local community and other regional and provincial tourism industry partners.
2) Establish awareness in the tourism industry and with tourism partners of the unique role of Grasslands National Park, and the primacy of maintaining or restoring ecological integrity.
3) Produce and distribute park advertisements, brochures, and other promotional material.
4) Establish partnerships and work cooperatively with all levels of government, business operators, and stakeholders. Participate in fairs, expos, trade shows, and other promotional venues.
5) Establish awareness of the park experience in domestic and international markets. Initiate contact with tourism and business associations in these markets.

4.7 The Grasslands Experience - General Concepts For Both Blocks

The East and West Blocks of the park offer different opportunities for visitors to appreciate, understand, and enjoy the Grasslands National Park experience.

This section highlights the unique offerings of each block. It was prepared to ensure that their uniqueness is reflected in park presentation and visitor management, by presenting specific details of facility and service provision. It also seeks to ensure that the energy and resources spent in providing facilities and services are used in the most efficient way possible.

Both blocks will receive equitable consideration in park management decision-making.

East Block

The East Block will focus on presenting opportunities for the more primitive, self-reliant experience, much the same as presently provided. Visitors should be seeking a more secluded wilderness experience, with minimal services and facilities. The protection of uninterrupted vistas is critical to the visitor experience.

The block offers tremendous opportunities for visitors to experience the wide open prairie, uplands interspersed with deep wooded coulees and valleys, and a good view of Killdeer Badlands.

The intact prairie landscape, and the rugged nature of the block give a "timeless" feel to the area and ensure ample opportunities for solitude, seclusion, and self-reliance. Visitors are currently presented with a range of wilderness activities, such as horseback riding, primitive camping, orienteering, hiking, mountain biking, and self-guided touring. Motorized vehicle touring will not be offered.

The wilderness nature of the East Block is what makes it special. Management efforts will ensure that this wilderness character will always remain. Service and facility provision will be limited by the patchwork of private and park holdings that makes access difficult. Building mutual support among the park, other tourist interests, and the landowners in the East Block will be important in facilitating a quality visitor experience.

West Block

The West Block offers visitors the opportunities to explore the valley of the Frenchman River and many other features that make this place special, such as the prairie dog towns and open prairie.

Here the visitor is presented with "accessible" wilderness just off the highway via the Ecotour Road and a wonderful chance to marvel at 70 Mile Butte and other stunning vistas.

The primitive yet more accessible wilderness of the West Block is a key feature in reaching the typical park visitor. These are people who want brief visits, reliable vehicle access, and supported experiences such as guided hikes.

Provision of services in the West Block will focus on ease of access, and a more supported experience such as reliable all-weather road access, guided hikes, marked trails, and a campground.

As with the entire park, maintaining ecological integrity, uninterrupted vistas, and a wilderness feel must be the primary considerations in facilitating this experience.

4.8 Appropriate Visitor Uses

A range of activities identified in Table 4.1 are appropriate types of experiences that visitors and staff can have while receiving park messages and appreciating park values. These activities are considered appropriate because they are in keeping with the park values and are in harmony with the maintenance of the ecological integrity of these values. They are largely based on the principles set out in "Proposed Framework for Assessing the Appropriateness of Recreational Activities in Protected Heritage Areas" (1994). Any new activities proposed for the park will be approved largely based on these principles.

Table 4.1 Appropriate Uses - Grasslands National Park of Canada

Auto-touring	● casual ●guided (West Block only)
Backpacking	● casual ● expedition
Camping	● primitive ● serviced ● group camping
Cycling	● road touring ● trail biking
Heritage Appreciation	● art activities ● photography ● learning about local history/culture ● experiencing heritage resources
Hiking/Walking	● interpretive trails ● dispersed/backcountry ● guided tours ● day/overnight
Horseback Riding	● casual ● guided/expedition
Interp. Programs	● guided hikes ● curriculum-based school programs ● audio-visual presentations ● special events ●demonstrations
Nature Appreciation	● bird-watching ● nature observation ● photography/art ● wildlife viewing
Orienteering	● exploring
Picnicking	● day use sites
Research	● personal ● professional
Sightseeing	● scenic vistas/landscapes ● wildlife ● vegetation
Special Events	● Canada Day ● Parks Day ●Prairie Appreciation Week ● "Prairie Wind and Silver Sage" events
Photography	● casual ● commercial filming
Visitor Reception	● casual visits ● structured visits ● park orientation ● personal and non-personal media
Wilderness Skills	● development ● enhancement

4.9 Provision of Visitor Facilities and Services

To make Grasslands National Park readily accessible to its target markets and the broader Canadian public, certain facilities and services should be offered to provide a high quality, safe, and rewarding experience. Based on the appropriate activities and motivations associated with the park's visit/use types, as well as the priority given to maintaining ecological integrity and protecting cultural resources, Grasslands National Park's services and facilities will be enhanced. The need to improve signage and road quality was the most consistently raised issue during public review of this management plan. This topic will receive particular attention.

STRATEGIC GOAL

- To provide the supporting facilities, services and opportunities to target markets and visit/use types.

4.9.1 Motorized Access

Most of the roads in the park or leading to it are in poor repair and impassable at times because of bad weather or their poor condition. Visitors are occasionally stranded in the park, or are unable to enter it.

Auto-touring is a major activity for many users of Grasslands National Park. As a result, without all-weather road access, the park cannot be presented as a reliable experience and destination for its target markets and visitors (All-weather road access is defined as available access under all conditions except extreme weather).

Some roads in the park are under the jurisdiction of rural municipalities. All inter-provincial highways leading to the park are under the jurisdiction of the Province of Saskatchewan. Parks Canada has no jurisdiction over either type of road and therefore, future management directions can only be considered in cooperation with other jurisdictions.

The federal government, the provincial government, rural municipalities, and neighbouring landowners will need to agree on which governments are in the best position to take ownership, financial responsibility, control, authority, maintenance, and operational decision-making for roads in the park. Maintenance of ecological integrity will be an important factor in this analysis. This level of agreement will be necessary to begin the more detailed analysis of the feasibility of upgrading the roads.

In the meantime, three priorities have been identified for road upgrading: the, Eco-Tour road in the West Block, the access road to the McGowan farm site in the East Block, and Highway #18 which connects the two blocks. All-weather road touring will not be offered in the East Block. Other existing roads in the East Block will be decommissioned as they are no longer needed for local access (see section 6.7).

KEY ACTIONS

1) Parks Canada will initiate discussions with appropriate authorities to discuss upgrading of the Eco-Tour road, the access road to the McGowan farm site and Highway #18 which connects the two blocks.

2) In the interim, Parks Canada will make full information available to visitors and potential visitors on the hazards of the present road system in the park.
3) Parks Canada will maintain readiness to address the unique public safety issues that may arise as a result of visits in spite of the absence of all-weather road access, even though such access does not fall within our jurisdiction.

4.9.2 Camping Facilities

Assessing the preferences of target markets show that camping facilities are an important part of the Grasslands National Park experience.

Factors to consider in locating campgrounds include the use of already disturbed areas and the need to tie together facilities such as roads, trails, and day-use sites to minimize physical and visual impacts on the landscape.

There are locally owned and operated campgrounds at Wood Mountain Regional Park (near the East Block), Val Marie (near the West Block), and in other communities around the park. These campgrounds can meet the needs of park visitors seeking fully serviced camping facilities.

KEY ACTIONS

1) Provide basic camping facilities in the West Block, consisting of one multi-site campground, with not more than ten individual sites. They should be serviced with marked, hardened sites, toilets, benches, picnic tables, and potable water.
2) Provide similar basic camping facilities in the East Block, as demand is demonstrated.
3) Undertake further analysis of visitor profiles and demand for camping facilities to guide the provision of additional camping facilities, if any, in both blocks.
4) Provide separate camping/equestrian facilities in both the East and West Blocks. Camping facilities should be serviced as in the West Block example above. They should also have hitching rails, stock pens, and a source of water.
5) Provide primitive, individual backcountry sites in both blocks, consisting of two separate campsites per block, with pit privies and potable water if reasonably attainable. Sites should be located away from roadways in the park.
6) Encourage dispersed, no-trace camping with no backcountry facilities.
7) Provide safety guidelines and suggestions for appropriate locations for backcountry dispersed camping.
8) Foster the development of enhanced visitor services, including camping facilities and interpretive services, in surrounding communities.

4.9.3 Signage

A comprehensive system of signs is required to orient visitors traveling to or in the park, and to provide safety messages and other pertinent park information. The sign system is in need of improvement to a level that satisfies visitors' ability to navigate to and within the park.

Parks Canada will work with rural municipalities, the Province of Saskatchewan, partners, and stakeholders to coordinate signage outside the park.

Within the proposed park boundaries, it will be important to identify boundaries between private and park lands (see section 5).

KEY ACTIONS

1) Establish kiosks at selected visitor entrances to the park, at park boundaries, at camping facilities and at day use sites. Kiosks will be unobtrusive in design and will post non-personal media, maps, safety tips, and other basic park messages.
2) Develop a comprehensive plan to provide directional signage for visitors travelling to and in the park.

4.9.4 Day Use Sites

Day use sites will be provided for the convenience of visitors passing through the park or wishing to visit for a day.

KEY ACTIONS

1) Develop one or two day use sites with road access in the West Block. Sites will feature scenic views, picnic areas, potable water supplies and privies. Where possible, they should be located with campgrounds and at previously disturbed sites.
2) Develop one day use site in the East Block similar to those described above.

4.9.5 Hiking Trails

Marked hiking trails provide visitors with a level of security in an unfamiliar landscape. On the open prairie, some visitors need such guidance but there are others who want to strike out and explore. When hikers following a marked trail across the prairies see something that catches their interest off the trail, they will go and investigate. In this case structure is not critical to this visitor's experience; a general area or route of interest would better serve their needs.

The most unobtrusive trail markers will be used to ensure hiker security while protecting vistas. Examples are old fence posts and field stones.

Prairie trails and fireguards in the park will be used for biking. Random horseback riding will be encouraged. Maps, safety messages, and information brochures highlighting areas of interest will be provided.

Short, marked trails are found in both blocks of the park. Two Trees Trail, in the West Block, is 1.5 km long and exposes the visitor to a superb vista of 70 Mile Butte. The Badlands Overview Trail, in the East Block, is 500 m long and provides a spectacular view of the Killdeer Badlands.

KEY ACTIONS

1) Encourage dispersed, off-trail, non-marked hiking. Brochures outlining a particular area of interest, or route to an area of interest, will include maps, descriptive routing details, safety messages, and environmental information.
2) Develop a marked trail in the West Block that is linked to the Eco-Tour Road.
3) Develop a marked trail in the East Block similar to the Two Trees Trail.
4) Tie in the above trails with Trans-Canada Trail interests if possible. Backcountry campsites could be located along this trail.

5) Provide brochures with maps marking areas of interest, safety messages, and other park information for horseback riders and bikers.

4.9.6 Barriers to Movement

Parks Canada will work with landowners to reduce barriers to freedom of movement created by the patchwork of private and park lands, to the greatest extent possible. The possibility of Texas gates on main circulation routes should be addressed.

KEY ACTIONS

1) Negotiate access through private holdings with landowners.
2) Provide appropriate signage to identify private landowners.

5. Administration

This section covers human resources, land ownership, and other park administration issues, as well as ongoing consultation with park stakeholders.

5.1 Administration of Non-Scheduled Park Lands

The *Canada National Parks Act* is the principle legislation that Parks Canada uses to manage resources and activities in national parks.

For the *Act* to apply on federal lands, those lands must be officially defined (scheduled) in the legislation. Until a park is scheduled, it is operated in the spirit of the *Canada National Parks Act*, but uses other applicable provincial or federal legislation. In many cases, this legislation is inadequate to manage and regulate a park as a national park.

Lands acquired to date for the park are scheduled in the *Canadian National Parks Act*. As lands continue to be acquired, there is a need to ensure that they are scheduled as soon as possible.

STRATEGIC GOAL

- To schedule lands as they are acquired for the park as soon as possible.

KEY ACTION

1) Continue the scheduling process for all park lands as they are acquired.

5.2 Administration of Patchwork Holdings and the Two Park Blocks

Acquiring land for the park, as outlined in the park establishment agreement, is based on a willing-seller/willing-buyer arrangement. This acquisition process has resulted in a patchwork of private lands, park lands, and community pastures in the proposed park boundaries. This creates access problems for park administration, visitors, hunters, and landowners.

Issues of public access through private land between park parcels, maintenance of fences and gates, and respect for property are a priority. With the ongoing land acquisition process, the patchwork landscape will exist for the foreseeable future.

In the spirit of a good neighbour, Parks Canada is willing to work cooperatively with adjacent landowners on common issues. A number of arrangements are presently in place between Parks Canada and neighbours regarding ownership and the maintenance of fences. Presentation programs can also be designed to increase the public's understanding of the challenges caused by the patchwork.

On a local scale, signage is an affordable option for orienting visitors. Replacing wire gates with Texas gates on main routes is another option that should be addressed cooperatively with landowners.

On a broader scale, the patchwork of land holdings creates a corresponding patchwork of applicable resource management guidelines, legislation, and management practices. There are opportunities to harmonize the varying management goals and practices across the landscape through formal and informal arrangements among landowners. The more this patchwork can be harmonized, the lower the level of conflict, and the greater the ability to work toward management on an ecosystem scale.

In addition to these challenges, the East Block of the park is now managed from the park administrative offices in Val Marie. The distance between the two blocks and the recent establishment of the park has meant there have been limited opportunities to expand needed resource management and protection activities, and visitor services in the East Block. Options for establishing a permanent, seasonal operational base in the East Block need to be identified and a base established.

STRATEGIC GOALS

- To consolidate park holdings to the greatest extent possible while maintaining the willing-seller/willing-buyer principle.
- To reduce barriers and increase freedom of movement of visitors to the greatest extent possible, in cooperation with private landowners.
- To harmonize land management goals and practices for lands within the proposed park boundary, to the greatest extent possible.
- To establish an operational base for resource protection and management in the East Block.

KEY ACTIONS

1) Take the lead in discussions with landowners to identify conditions and terms of public access through the patchwork of lands.
2) Provide information to park visitors on proper conduct when travelling on private and park lands while enjoying their Grasslands National Park experience.
3) Minimize disruption that landowners might experience from increases in traffic and visits on adjacent lands.
4) Provide appropriate signage in the park to orient visitors to lands held by the park and lands held privately, and work with adjacent municipalities to provide signage outside the park.
5) Solicit landowner assistance in informing hunters and visitors of park boundaries.
6) Pursue arrangements with landowners to conserve native prairie on unacquired lands within the proposed park boundary.
7) Identify and evaluate options for establishing an operational base in the East Block and proceeding with its establishment.

5.3 Potential National Historic Site Designation

Grasslands National Park has been identified as a candidate for designation as a national historic site because of the significant concentration of precontact cultural resources in the park. National historic site designation would provide an additional profile and level of management for the park's cultural resources, in keeping with the park's exceptional cultural heritage values.

The possibility of designation has been formally presented to The Historic Sites and Monuments Board. Consultations were subsequently held between Parks Canada and Aboriginal people in 1995. There is a need to complete the assessment and consultations necessary to determine if Grasslands National Park warrants designation as a national historic site.

STRATEGIC GOAL

- To complete administrative and consultative requirements needed to make a final recommendation on the appropriateness of national historic site designation for Grasslands National Park.

KEY ACTION

1) Grasslands National Park administration will take a lead in completing the designation assessment process by consulting with Aboriginal communities and the National Historic Sites and Monuments Board.

5.4 The Role of an Ongoing Stakeholder Advisory Committee

Public participation and the formation of long-term alliances with stakeholders and public participation are key to achieving ecological integrity in the park and in the greater ecosystem.

Public consultation is a principal component of the management planning process. Parks Canada needs the long-term advice, support and cooperation of key stakeholders, to protect and present the ecological and cultural resources of the park.

A Local Advisory Committee (LAC) was struck in 1988. The LAC's role was to address issues of concern for the park and local landowners. The LAC has not met for several years. The opportunity exists to use the park management plan advisory committee as a basis for a new park advisory committee.

STRATEGIC GOAL

- To develop an effective consultative structure for the park involving a specific but wide range of stakeholders to address issues.

KEY ACTION

1) Parks Canada will recommend dissolving the existing LAC and strike a new advisory committee with a clear mandate, broad scope, broad representation, and effective working structure. The advisory committee structure used during the management planning process for Grasslands National Park will be used as a model.

5.5 The Challenge of Managing a New and Growing Park

As the park continues to grow in land holdings, visitation, research, and active management of its resources, greater responsibilities will be placed on park managers.

5.5.1 Protection and Management

The current patchwork of land holdings is scattered throughout four rural municipalities. Increased visitation will increase the incidence of public safety occurrences for lost or injured parties. It will also increase the chances of grass fires started by vehicles or accidental ignition.

In addition to resource protection and public safety, there will be increased active management of the park's cultural and natural resources. In particular, the rehabilitation of native grasslands and restoration of a grazing regime are large undertakings. There are many endangered species within the park whose protection and recovery will also require more resources. In particular, the reintroduction of bison will be a major undertaking.

5.5.2 Interpretation and Visitor Services

As visitation increases, the challenges for Heritage Communications staff will also increase.

Delivery of reception and orientation services must be enhanced to meet visitor demand in the East and West Blocks. Interpretive programs that meet the needs of visiting educational institutions as well as the visiting public will be developed. Support services will require the development of materials such as maps, exhibits, information brochures, signage, marketing promotions, and outreach programs.

STRATEGIC GOALS

- To respond effectively and efficiently to existing and emerging needs as the park grows and matures.
- To develop and maintain law enforcement and public safety programs as necessary.

KEY ACTIONS

1) Develop facilities for resource protection and management programs.
2) Assess the feasibility of developing a visitor reception facility that includes exhibits, audio-visual programs, space for orientation of community attractions, storage, and adequate parking for motor coaches and other vehicles (see section 4.6.1).
3) Increase visitor services/reception at the East Block (see section 4.6.1).
4) Ensure that the quality of construction and appearance of all facilities reflects the architectural and design standards of *Grasslands National Park Facilities Appearance Guidelines (1995)*.
5) Replace the trailer currently housing the park warden service staff, with an adequate facility.
6) Maintain law plans and update them on a periodic basis.

7) Continue to place a high priority on the prevention of public safety incidents through effective communications and visitor reception and orientation services.
8) Maintain public safety plans and update them on a periodic basis.
9) Continue to work in liaison with local and regional agencies involved in law enforcement and the provision of public safety services.

5.6 Monitoring of Plan and Park Status

The implementation of this management plan will be reviewed annually and communicated (see section 3.1). Every five years a State of the Park Report will be prepared to support the formal review of the park management plan.

6. Zoning

The national parks zoning system is a valuable tool in applying broad management strategies. It sets limits on what uses can occur and where they can occur in the park, and it provides a statement of management objectives and practices.

Zoning is one of an array of management strategies used by Parks Canada in maintaining ecological integrity and in directing compatible visitor activities to appropriate areas within the park. Once set forth in a national park management plan, zoning can be changed only through park management plan amendment that necessitates public consultation, environmental assessment, approval by the Minister, and tabling in Parliament.

There are five zoning classifications in the national parks zoning system, four of which are represented in Grasslands National Park (Figures 7 and 8). They are of fundamental importance in setting the stage for the activities of park managers and park visitors.

For completeness, all five zones are described.

6.1 Zone I - Special Preservation

Site Preservation, Limited or No Access

Zone I lands deserve special preservation because they contain or support unique, threatened, or endangered natural or cultural features, or are among the best examples of features that represent a natural region. Preservation is the key consideration. Motorized access is not permitted. Visitor access is strictly controlled.

The large rattlesnake hibernaculum in the West Block is designated as Zone I - Special Preservation. This sensitive overwintering habitat is subject to accelerated erosion and damage from excessive human traffic. The seasonal concentration of snakes is also subject to disturbance. Visitor access may be prohibited on a seasonal basis.

Because of the sensitivity of this Zone I area it is not shown on the maps.

6.2 Zone II - Wilderness

Wilderness Enjoyment, No Motorized Access

Zone II contains extensive areas that are good representations of a natural region and conserved in a wilderness state.

Parks Canada's *Guiding Principles and Operating Policies* state that the majority of a national park is to be designated Zone II. The perpetuation of ecosystems with minimal human interference is the key consideration.

Zone II areas offer opportunities for visitors to experience, first hand, the park's ecosystems. Such areas require few, if any, rudimentary services and facilities. Motorized access is not permitted. The maintenance of visual integrity of the landscape, through uninterrupted vistas, is also a major consideration. In keeping with Parks Canada's policy, most of Grasslands National Park will be designated as Zone II - Wilderness. All areas of the park not otherwise designated under another zoning, or a non-conforming use designation, are designated as Zone II.

6.3 Zone III - Natural Environment

Natural/Cultural Heritage Enjoyment, Controlled Access

In Zone III areas, visitors experience the park's natural and cultural heritage through outdoor recreational activities that require minimal services and facilities of a rustic nature. Zone III applies to areas where visitor use requires facilities that exceed the acceptable standards for Zone II.

Remote, designated campgrounds in the park will be designated as Zone III because of the requirement for a basic level of facilities. Motorized access to these sites will not be permitted.

6.4 Zone IV - Outdoor Recreation

Natural/Cultural Heritage Enjoyment, Motorized Access

Zone IV accommodates a broad range of opportunities for understanding, appreciating, and enjoying the park's heritage. Essential services and facilities are provided in ways that have the least possible impact on the ecological integrity of the park. Direct access by motorized vehicle is permitted.

Areas in the park designated as Zone IV include:

- the Ecotour Road and road to McGowan's farmhouse, which are the two main public access roads. McGowan's Road is designated Zone IV, while the Ecotour Road is designated Zone IV in principle because it is municipally owned;
- the following sites, which are prime candidate sites to be considered for the establishment of basic campgrounds and basic horseback rider campgrounds: Belza's, Gillespie's, McGowan's, Larson's, Syrenne's, Tanter's and Peterson's Lookout;
- Anderson's corral, which is a prime candidate site to be considered for the establishment of a corral. It is required to support horseback riding.
- scenic lookouts (when established);
- trailhead parking lots (when established);
- day-use sites (when established);
- park operation stations (when established).

Access to some Zone IV areas may need to be temporarily by roads and trails designated as non-conforming use (see section 6.7), until proper Zone IV routes can be established and incorporated in a management plan review.

Figure 7 - West Block Zoning
Grasslands National Park of Canada

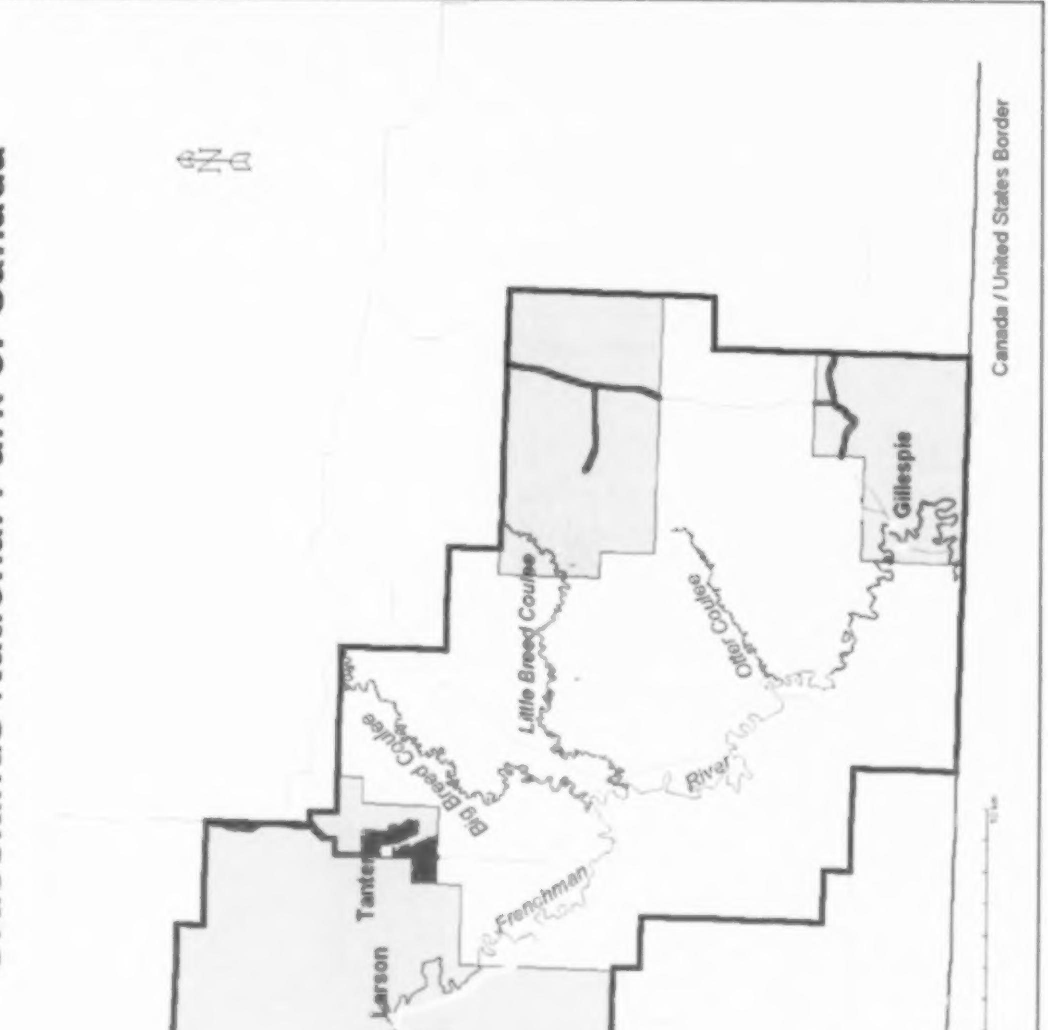
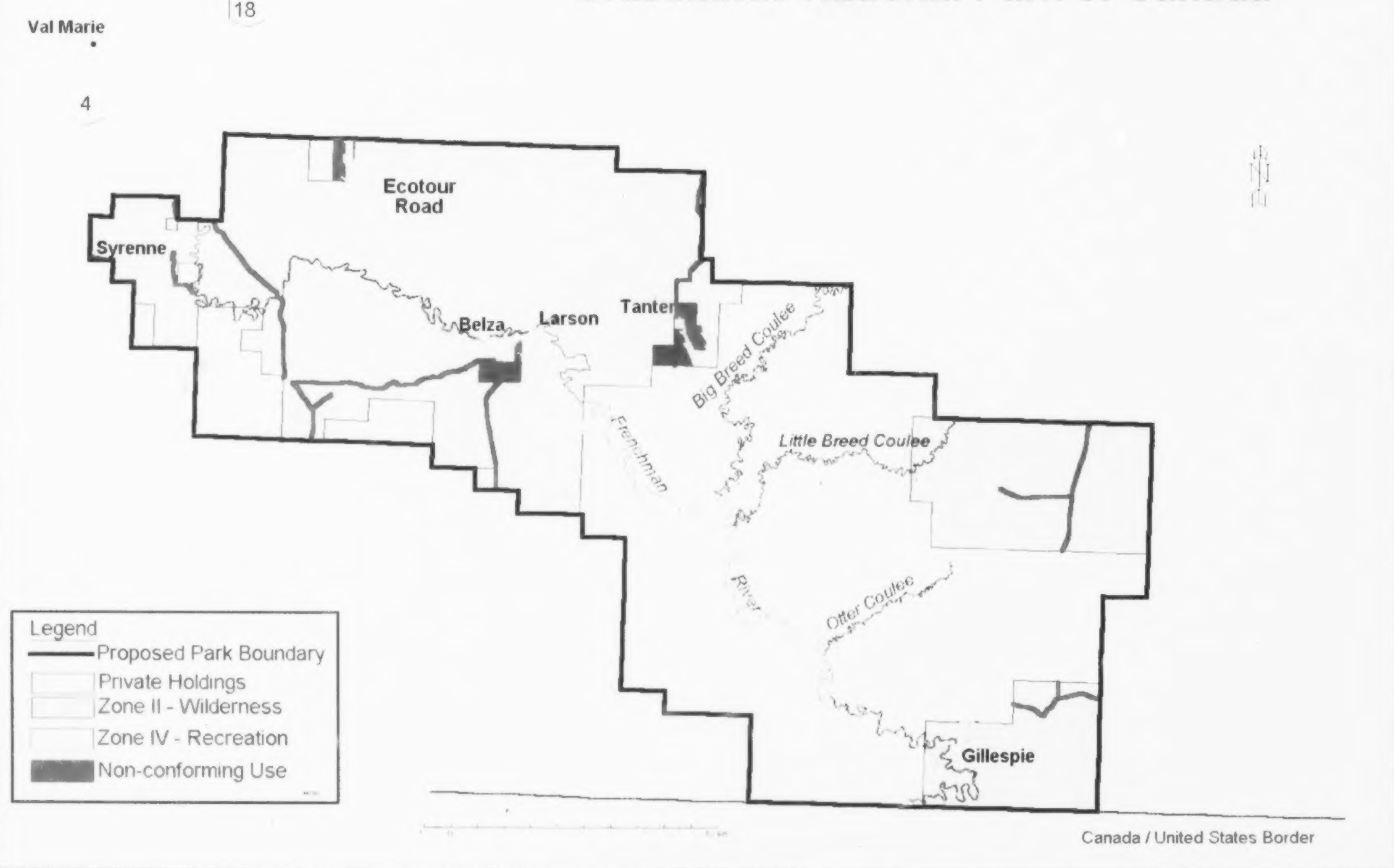

Val Marie
4
18
Syrenne
Ecotour Road
Belza
Larson
Tante
Frenchman
River
Big Breed Coulee
Little Breed Coulee
Otter Coulee
Gillespie
N
Canada / United States Border
Legend
Proposed Park Boundary
Private Holdings
Zone II - Wilderness
Zone IV - Recreation
Non-conforming Use

Figure 7 - West Block Zoning

Grasslands National Park of Canada



Val Marie
18
4
Ecotour Road
Syrenne
Belza
Larson
Tanter
Big Breed Coulee
Little Breed Coulee
Frenchman
River
Otter Coulee
Gillespie
Canada / United States Border
Legend
Proposed Park Boundary
Private Holdings
Zone II - Wilderness
Zone IV - Recreation
Non-conforming Use

Figure 8 - East Block Zoning
Grasslands National Park of Canada

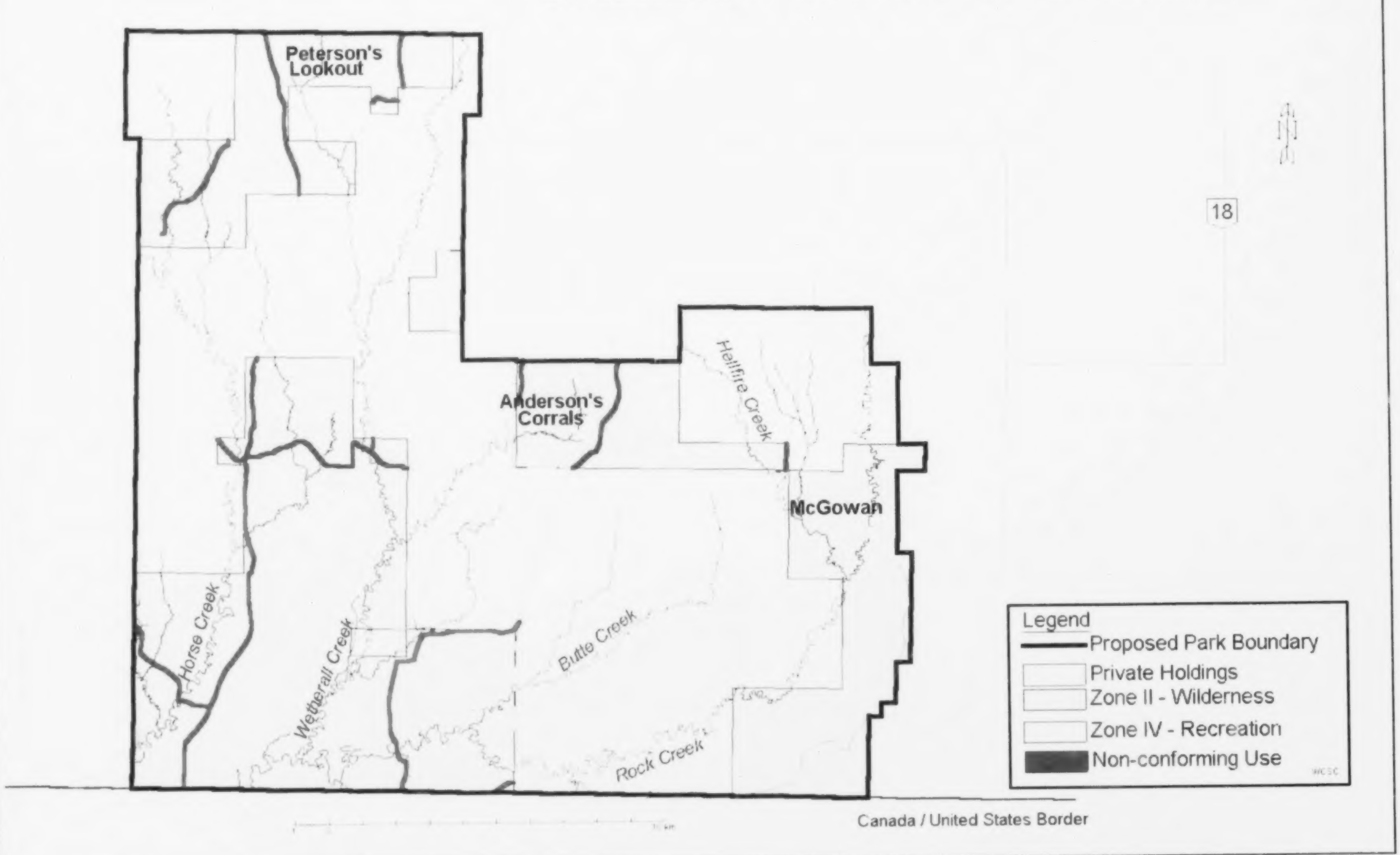
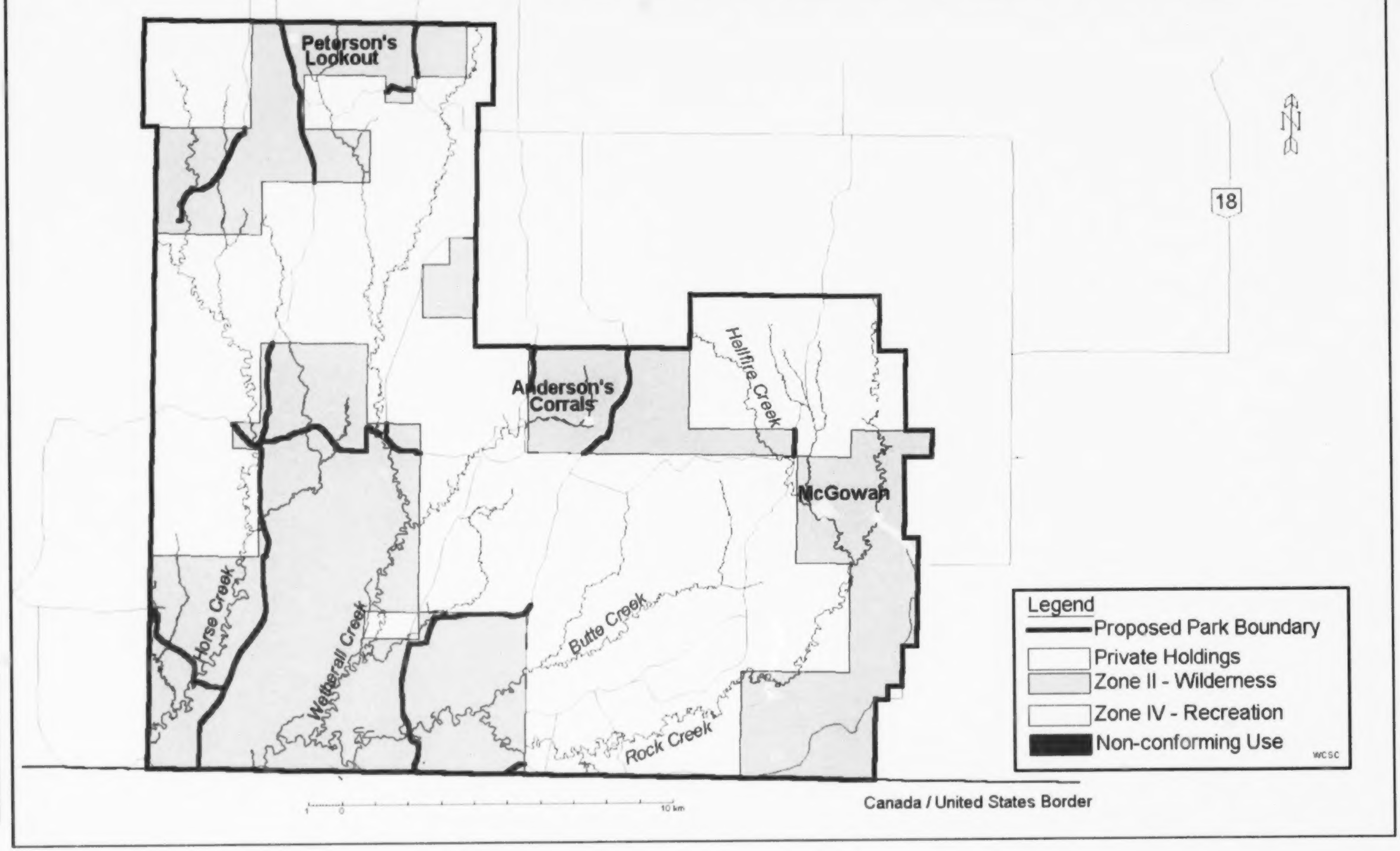

Peterson's Lookout
Anderson's Corrals
Hellfire Creek
McGowan
Horse Creek
Wetherall Creek
Butte Creek
Rock Creek
18
Canada / United States Border
Legend
Proposed Park Boundary
Private Holdings
Zone II - Wilderness
Zone IV - Recreation
Non-conforming Use

Figure 8 - East Block Zoning

Grasslands National Park of Canada


Peterson's Lookout
Anderson's Corrals
McGowan
Hellfire Creek
Butte Creek
Rock Creek
Wetherall Creek
Horse Creek
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Legend
Proposed Park Boundary
Private Holdings
Zone II - Wilderness
Zone IV - Recreation
Non-conforming Use
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10 km
Canada / United States Border

6.5 Zone V - Park Services

Townsites, and Concentrated Visitor and Administrative Facilities

Zone V applies to communities in national parks with a concentration of visitor services, support facilities, and commercial enterprises. Major park operational and administrative functions are also located centrally to minimize impact on ecological integrity. There is no Zone V designation in Grasslands National Park.

6.6 Sensitive Area Designation

Along with the five zoning designations, Parks Canada's policy provides for the designation of Culturally and Environmentally Sensitive Areas to complement the zoning system. These designations can be applied to areas that require special protection or management not provided by zoning designation.

Sensitive Area designation is useful for areas that may need more flexibility in access and management. Park management plans may designate these areas in any zone.

Because of the sensitivity of these areas, they are not shown on the maps.

Environmentally Sensitive Areas

Two types of resources in the park are designated as Environmentally Sensitive Areas. Sage grouse leks and raptor nesting sites are designated as Environmentally Sensitive Areas because these sites are susceptible to human disturbance and their locations may change from year to year.

The specific locations of these sites may, as a result, be decided on a seasonal basis. Visitor access may be seasonally prohibited and an intensive monitoring program will be implemented.

Culturally Sensitive Areas

Three categories of cultural resources are designated as Culturally Sensitive Areas.

- **Recent cultural resources:** These have historic value and require special actions for their protection and presentation. See section 3.9 for an outline of the management prescription for extant historic structures.
- **Aboriginal sites and features:** These include features that may be considered sacred by Aboriginal people, such as medicine wheels and burial sites. See section 3.9 for the management prescription.
- **Threatened sites:** These include features vulnerable to destruction by natural processes such as erosion, and those areas that receive relatively high levels of visitor use.

The management prescription for sites vulnerable to natural forces is covered in section 3.10. The management prescription for sites vulnerable to damage through human impacts in high use locations such as the Two Trees Trail, snake hibernacula, 70 Mile Butte, and the Ecotour nodes, is detailed in section 3.11.

6.7 Non-Conforming Uses

Non-conforming uses are those uses that are permitted but are not in keeping with national park standards and values. They may be designated where unique circumstances require the recognition and permitting of exceptional activities.

Non-conforming uses are usually short term and guided by prescriptions that set out the time frame and special circumstances that apply to this designation. The key objective is to ensure that these uses do not become permanent, by recognizing them as temporary and conditional.

The following are identified as non-conforming uses:

Roads and Trails

The present patchwork of park and private lands will require vehicle access throughout large areas of the park for local residents, park managers, and visitors for the foreseeable future. As a result, trails and roads that are presently needed and used for local or visitor access or for park management are designated as a non-conforming use (excluding the Two Trees Trail, Eco-tour and McGowan's roads which are Zone IV - Outdoor Recreation). This designation will be removed when park holdings are consolidated to the point that there is no further need for local access in that particular area, and/or when sufficient alternate road routes are provided.

Land Leases

A total of 522 ha of land is farmed under land leases. These areas will actively be restored to native mixed-grass as seed becomes available and resources permit. In the meantime, farming is an effective short-term means of controlling exotic plant species until the sites can be revegetated with native species. It is expected that complete restoration of these lands will take about fifteen years. In the interim, land leases are identified as non-conforming uses.

Licences of Occupation

As land is acquired for the park, a licence of occupation is usually extended to the land seller by Parks Canada to minimize disruption to ranchers during the transition period. Licences are also granted to operate cultivated land, to minimize weed proliferation until the lands can be rehabilitated. The licence is negotiated for periods of up to five years. Licences of occupation are identified as non-conforming uses.

6.8 Declared Wilderness

Lands within national parks may be designated as declared wilderness, under the *Canada National Parks Act.* Designating lands in Grasslands National Park during the ongoing period of land acquisition is impractical. The appropriateness of designation for Grasslands National Park will be addressed when this plan is reviewed in five years.

7. Environmental Assessment Decision Statement

The Grasslands National Park of Canada Management Plan (2000) was subjected to an environmental assessment pursuant to the Cabinet Directive, "The 1999 Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals" under the *Canadian Environmental Assessment Act* (1999) (CEAA) . The environmental screening was conducted early in the final draft stage of the planning process, to ensure that the environmental effects of the initiatives contained in the plan were fully considered before any irrevocable decisions had been taken. The evaluation of environmental effects included a consideration of natural, cultural and socio-economic effects.

The environmental assessment focused on twelve major initiatives that could result in environmental effects. These initiatives are described in the Grasslands National Park of Canada Management Plan and have been briefly described in this report. Grazing, fire, reintroduction of bison, and revegetation will restore some of the ecosystem's natural elements and will therefore have positive effects on the ecosystems. The effects of scientific research, monitoring, and visitors in the park, can be minimized by following established procedures. Many of the initiatives are conceptual in nature (for example visitor facilities and services) and will require further assessment or screening when the specific proposals have been developed. The required mitigation, surveillance and follow-up will have to be developed when the proposals progress from the conceptual phase to the design and implementation phase.

The Grasslands National Park of Canada Management Plan was also evaluated for cumulative effects on the environment, as follows:

- The management plan outlines actions aimed at reducing the cumulative effects of cultivated land, exotic species, loss of species, and changes in fire and grazing regimes.
- Habitat quality and habitat fragmentation may be impacted cumulatively by visitors. The park should determine social and physical carrying capacities, based on known and projected visitor use levels, and establish acceptable limits of change to manage the development pressures for the park.
- Many of the sources of cumulative impacts are outside the park. As a result, the park will continue to develop alliances with stakeholders to establish regional objectives to maintain the ecological and cultural resource integrity of the greater ecosystem.

The environmental screening has determined that the potentially adverse environmental effects from the proposals in the Grasslands National Park of Canada Management Plan can be mitigated. Proposals which could result in adverse effects or raise public concern will be subject to project-specific assessments conducted under CEAA or Parks Canada policy as the project develops from conceptual stage to design and implementation.

8. Implementation

Parks Canada uses its annual business planning process to identify how it will meet its objectives.

The management plan provides the strategic direction upon which a park's business plan is based. The business plan will identify the specifics of when and how the management plan strategies will be implemented. The business plan priorities are based on maintaining or restoring ecological integrity, service to clients, and wise and efficient use of resources.

The achievement of many provisions in this management plan is dependent on the availability of financial resources and an adequate base of research. Approval of this plan does not constitute automatic approval of funding for implementation.

Implementation of actions recommended in this management plan will be the responsibility of the Parks Canada Field Unit Superintendent for Grasslands National Park of Canada.

LIST OF CONTRIBUTORS

Parks Canada

Gary Adams
Dave Beeusaert
Katherine Cumming
Graham Dodds
Shelley Duquette Larson
Pat Fargey
Richard Leonard
Dennis Madsen
Jim Masyk
Stephen McCanny
Flo Miller
Tom Naughten
Julie Parsonage
Cheryl Penny
Colin Schmidt
Suzanne Therrien-Richards
Jennifer Wood
Mike Wynn

Grasslands National Park Advisory Committee

Wendy Alie	Métis Society of Saskatchewan
Miles Anderson	Saskatchewan Stock Growers' Association
Trish Davidson	Towns
Pat Fitzpatrick	Wood Mountain Historical Society
David Gauthier	Canadian Plains Research Centre, University of Regina
Lynn Grant	"Prairie Wind and Silver Sage" —Friends of Grasslands Inc.
Rick Hotaling	U.S. Bureau of Land Management
Lyn Johnston	Great Trails Getaway Region
Mike Klein	Municipalities
Bruce Martin	Saskatchewan Department of Environment and Resource Management
Lloyd Saul and Kathleen Donauer	Nature Saskatchewan

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